DIXON ZTR

Set-Up Instructions for CE Kodiak Models

Setup

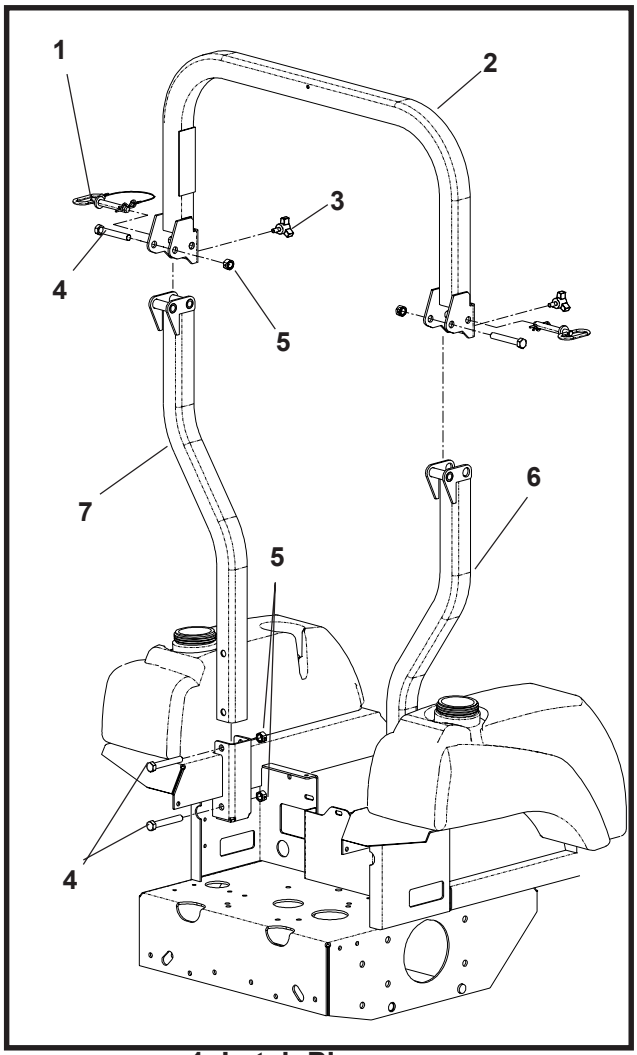
Uncrate machine.

ROPS Assembly (Roll Over Protection System)

ROPS Assembly Components

1 - Top Loop
1 - Left Side Post
1 - Right Side Post
1 - Hardware Bag
  2 - 1/2" Latch Pins w/lanyard
  6 - 1/2C x 3 1/4" Cap screws
  6 - 1/2C Centerlock Nuts
  2 - Knobs
(all hardware Grade 5).

1. Remove roll bar and parts bag from the box.
2. Install roll bar side posts.
   a. Locate the LEFT and RIGHT side posts.
   b. Slide the left side post into the left side receiver on the frame, do the same on the right side.
   c. Using 1/2C x 3 1/4 cap screws, two per post, align the holes in the side post with the frame receiver.
   d. Install the 1/2C centerlock nuts finger tight to the side post bolts.
3. Install roll bar top loop.
   a. Align the holes of the top loop with the left and right side posts.
   b. Slide the latch pins thru the front hole on the left and right side to connect the top loop to the side posts and secure with the hairpin.
   c. Using 1/2C x 3 1/4 cap screws thru the rear hole on the left and right side.
   d. Install the 1/2C centerlock nuts finger tight.
4. Torque all 1/2" hardware to 80 ft./lbs. (110 N•m).
5. Install and tighten knobs against the side post.



1. Latch Pin
2. Top Loop
3. Knob
4 1/2C x 3 1/4 Cap Screws
5. 1/2C Centerlock Nuts
6. Right Side Post
7. Left Side Post

PART NO. 539 130506 REV. IR (01/25/07)

Tires

Mount rear drive wheels using the lug nuts installed on the hubs.

Check the tire pressure in all four tires. All tires should be 15 psi.

Control Arms

Remove top bolt in control arm and loosen bottom bolt, rotate the control levers to the upright position. Align the levers so they are even in the neutral position. Reinstall hardware and tighten. FIG - 1

Seat Install

1. Remove seat assembly from the crate.
2. Remove the four 5/16C nyloc nuts or 5/16C studded knobs from the bottom of the seat. Retain for use later.
3. Align the seat bottom with the holes in the seat frame. Place seat on top of the seat frame and secure with the four nuts or knobs removed in step 2.
4. Connect the wire harness from the seat to the frame harness.

Engine Oil

Check engine oil with dip stick. Add if needed per the engine manufactures specifications. See engine manual for oil type and filling specifications. FIG - 2

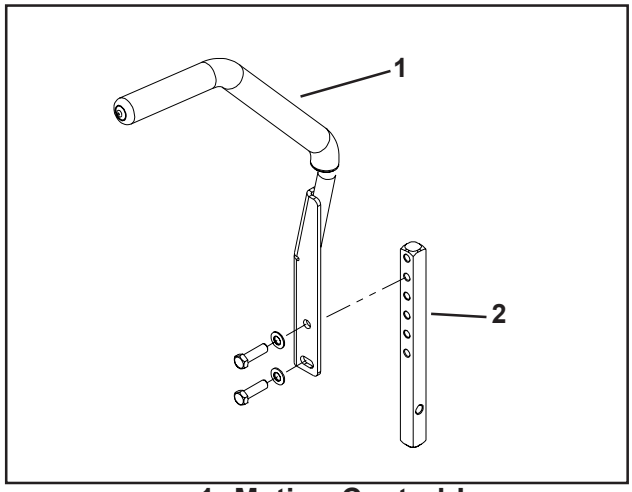
Loosen the discharge chute slightly and lower into position. Chute should be snug but still pivot freely.

Install armrests to seat. Hardware and armrests are in the plastic bag.

Discharge Chute

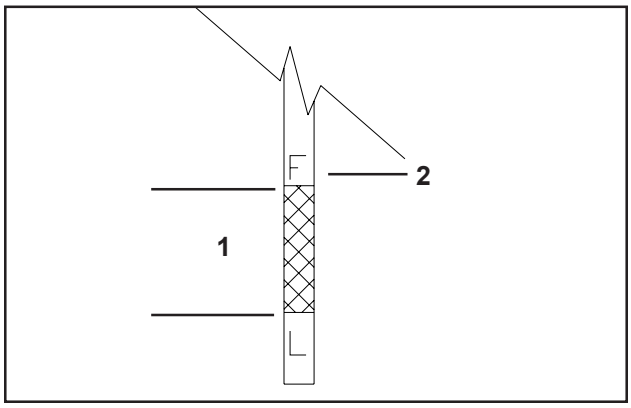
If discharge chute is not assembled to the cutting deck follow the instructions below.

1. Hook the spring end over the discharge chute and align the I.D. of the spring with the holes in the chute.
2. Align the chute and spring with the tabs on the cutting deck. Rotate the spring end counterclockwise so it rests on top of the cutting deck.
3. Slide the clevis pin with a 5/16 washer thru the holes of the chute, deck and spring.
4. Secure clevis pin with 5/16 washer and cotter pin.
5. If assembled properly the chute should be spring loaded in the down position. FIG - 3



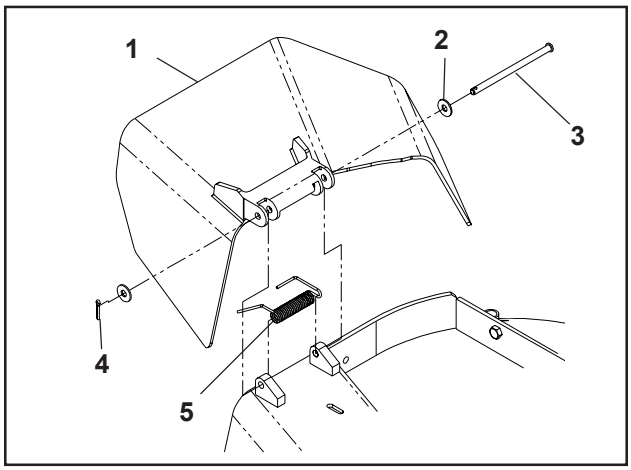
1. Motion Control Lever
2. Control Arm

FIG - 1



1. Operating Range
2. "F" Full Mark

FIG - 2



1. Discharge Chute
2. 5/16 Washer
3. Clevis Pin
4. 1/2 X 3/4 Cotter Pin
5. Spring

FIG - 3

Adjusting the Mower Deck

WARNING!

Before performing any service or adjustment check list:

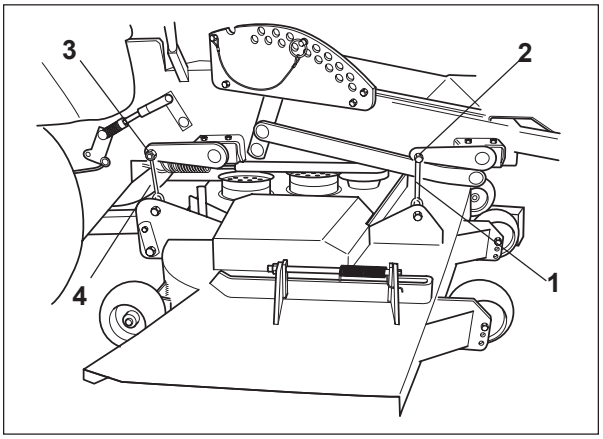
1. **Engage the parking brake.**
2. **Place the blade-switch in the disengaged position.**
3. **Turn ignition switch to "OFF" position and remove the key.**
4. **Make sure the blades and all moving parts have completely stopped.**
5. **Disconnect the spark plug wire from all spark plugs and place the wire where it cannot come in contact with the plug.**

Deck Leveling

1. Position the mower on a level, hard surface
2. Check the pressure in all four tires. See "Technical Data" section in the Operator's manual.
3. Set deck cutting height at 4".
4. Rotate blades to align front to back.
5. Measure front blade tip,should be 4" from ground, if not turn locknut on top of front eyebolt till measurement is achieved. Check blade tip at front on opposite front blade. Adjust locknut on front eyebolt as necessary.
6. Check rear blade measurement, should be 4 1/4" from ground, if not turn locknut on top of rear eyelbolt to achieve measurement. Repeat procedure on opposite side.
8. If deck leveling cannot be achieved call Technical Support at toll free number 1-866-729-5123.

WARNING!

Blades are sharp. Protect your hands with gloves and/or wrap blades with a heavy cloth when handling.



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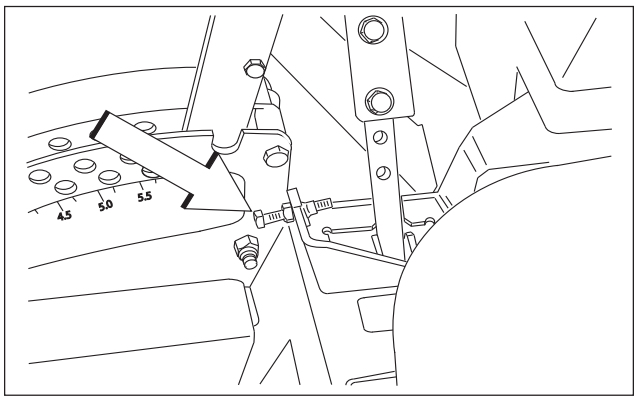
1. Front Eyeblot
2. Front Locknut
3. Rear Locknut
4. Rear Eyebolt

Leveling mower deck

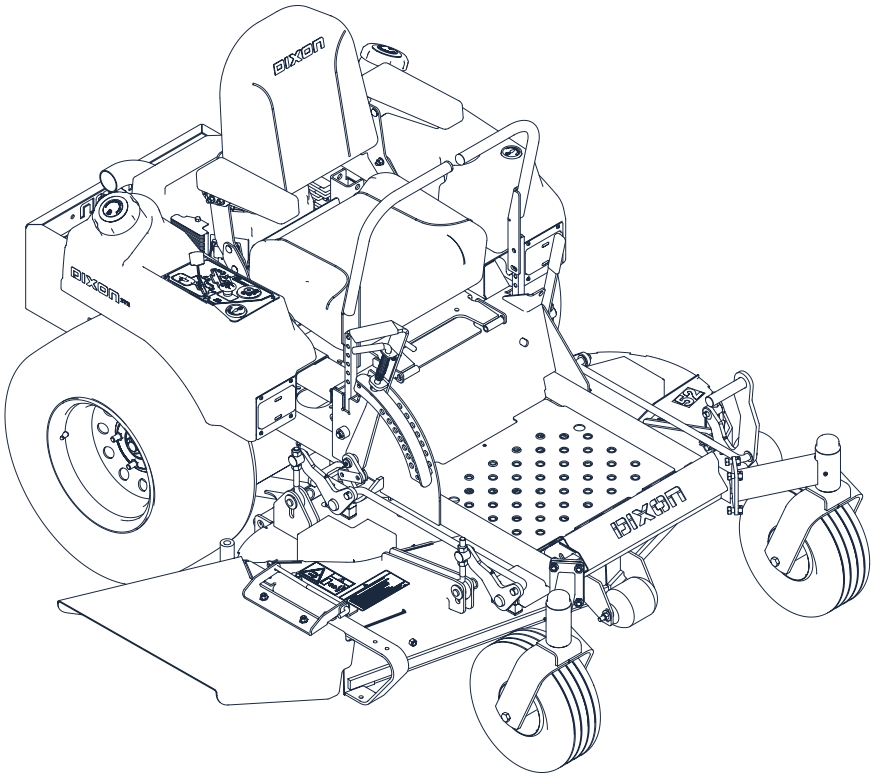
Tracking

1. Tracking adjustment is accomplished using the tracking bolts. The tracking bolts act as limiting device for the motion control levers when in the full-forward position.
2. Start by loosening jam nut on right tracking bolt. Back the tracking bolt out until flush with nut.
3. Loosen tracking bolts and back out until flush with nut.
4. Move unit to an open unobstructed area such as an empty parking lot or open field for tracking adjustment.
5. Test operate unit by driving it at full throttle and full forward position on both motion control levers. Gradually turn in the tracking bolt on the right hand side until the unit noticeably starts drifting right.
6. Stop the unit and tighten right jam nut in this position.
7. Restart the unit and drive forward at full throttle with both motion control levers in full forward position. Gradually turn in the tracking bolt (left side) until unit tracks straight.
8. Stop the unit and tighten left jam nut in this position.



Tracking bolt

DIXON ZTR



Operator’s Manual

KODIAK 52, 20 HONDA / 968999635
KODIAK 60, 25 KOH / 968999636

Please read the operator’s manual carefully and make sure you understand the instructions before using the machine.

OPERATOR'S MANUAL

KODIAK SERIES

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WARNING!

Failure to follow cautious operating practices can result in serious injury to the operator or other persons. The owner must understand these instructions, and must allow only trained persons who understand these instructions to operate the mower. Each person operating the mower must be of sound mind and body and must not be under the influence of any mind altering substance.

INTRODUCTION

Introduction

Congratulations

Thank you for purchasing a Dixon ride-on mower. This machine is built for superior efficiency to rapidly mow primarily large areas. A control panel easily accessible to the operator and a hydrostatic transmission regulated by steering controls both contribute to the machine's performance.

This manual is a valuable document. Read the contents carefully before using or servicing the machine. The following of instructions (use, service, maintenance, etc.) by all who operate this machine is important for the safety of the operator and others. It can also considerably increase the life span of the machine and increase its resale value.

If you sell your machine, be sure to give the operator's manual to the new owner.

The final chapter of this operator's manual provides a Service Journal. Ensure that service and repair work are documented. A well-kept service journal reduces service costs for the maintenance and affects the machine's resale value. Please contact your dealer for more information. Take the operator's manual along when the machine is taken to your dealer for service.

General

In this operator's manual, left and right, backward and forward are used in relation to the machine's normal driving direction.

Continuous dedication to improve our products require that specifications and design are subject to change without notice.

Driving and Transport on Public Roads

Check applicable road traffic regulations before transporting on public roads. If the machine is transported, you must always use approved fastening equipment and ensure that the machine is well anchored. DO NOT operate this machine on public roadways.

Towing

Do not tow this machine, it may cause damage to the drive system.

Do not tow any trailers, etc. with this mower. They may jackknife or overturn causing damage to the mower and possibly serious injury to the operator.

Operating

This machine is constructed only for mowing grass on lawns and other free and even ground without obstacles such as stones, tree stumps, etc. The machine can also be used for other tasks when equipped with special accessories provided by the manufacturer. Operating instructions are provided with delivery. All other types of use are incorrect. The manufacturer's directions concerning operation, maintenance and repairs must be carefully followed.

Lawn mowers and all power equipment, can be potentially dangerous if used improperly. Safety requires good judgement, careful use in accordance with these instructions and common sense.

The machine must only be operated, maintained, and repaired by persons familiar with the machine's special characteristics and who are also knowledgeable about the safety instructions. Use only approved repair parts to maintain this machine.

Accident prevention regulations, other general safety regulations, occupational safety rules, and traffic regulations must be followed without fail.

Unauthorized modifications to the design of the machine may absolve the manufacturer from liability for any resulting personal injury or property damage.

Good Service

Dixon's products are sold all over the world and only in specialized retail stores with complete service. This ensures that you as a customer receive only the best support and service. Before the product is delivered, the machine has, for example, been inspected and adjusted by your retailer, see the certificate in the Service Journal in this operator's manual.

When you need spare parts or support in service questions, warranty issues, etc., please consult the following professional:

This Operator's Manual belongs to the machine with manufacturing number:	Engine	Transmission

Manufacturing Number

The machine's manufacturing number can be found on the printed plate affixed to the left in the engine compartment. Stated on the plate, from the top are:

- The machine's type designation (I.D.).
- The manufacturer's type number (Model).
- The machine's serial number (Serial no.)

Please state the type designation and serial number when ordering spare parts.

The engine's manufacturing number is stated on a barcode decal. This is placed on the left side of the crankcase, in front of the starter. The plate states:

- The engine's serial number (E/NO).
- The engine's type designation (Code).

Please state these when ordering spare parts.

The hydraulic pump's manufacturing number is stated on a barcode decal affixed to the left side of the pump housing. The plate states:

- The pump's type designation.
- The pump's serial number.

The hydraulic motor's manufacturing number is stated on a round metal plate. This is placed on the gable inside the motor. The plate states:

- The hydraulic motor's type designation and design version.
- The hydraulic motor's serial number.

SYMBOLS AND DECALS

Symbols and Decals

These symbols are found on the machine and in the operator's manual.
Study them carefully so that you know what they mean.

WARNING!
Xxxxxxx xxxx xxxxxxxx xxx x
Xxxxx xxxxxx xx.
xx xxxxxxxx xxxxx xxx xx.

Used in this publication to notify the reader of a risk of **personal injury or death**, particularly if the reader should neglect to follow instructions given in the manual.

IMPORTANT INFORMATION
Xxxxxxx xxxx xxxxxxxx xxx xxx
xxxx xxxxxx xx.

Used in this publication to notify the reader of a risk of **material damage**, particularly if the reader should neglect to follow instructions given in the manual. Used also when there is a potential for misuse or misassembly.

Reverse

Neutra

Fast

Slow

Choke

Fuel

Warning!

Park brake

CE conformity marking. Only for European market

Warning! Rotating blades, keep away from the discharge deck

Do not touch rotating parts

Battery acid is corrosive, explosive, and flammable

Do not stand here

Noise emissions to the surroundings in accordance with the European Union's directive. The machine's emission is stated in the chapter TECHNICAL DATA and on the decals.

Only machines for European market

Use protective glasses

Use protective gloves

SYMBOLS AND DECALS

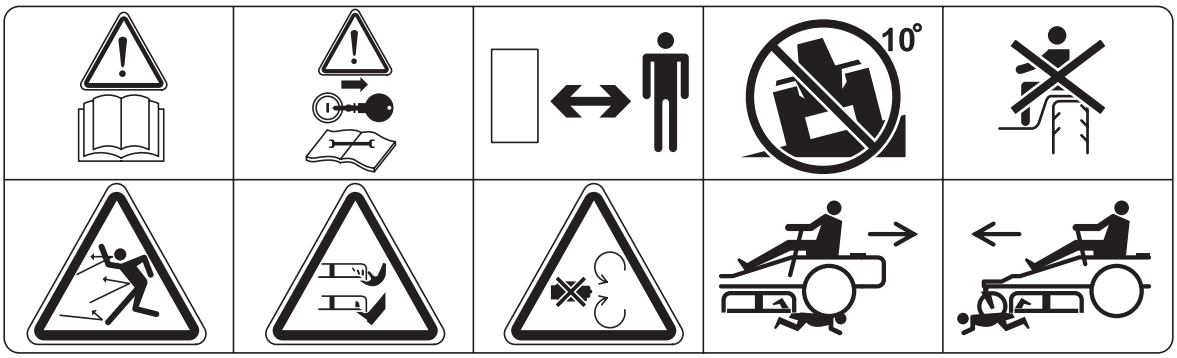
Read Operator´s Manual.

Shut off engine & remove key before performing any maintenance or repair work.

Keep a safe distance from the machine.

Use on slopes no greater than 10°.

No passengers



Whole body exposure to thrown objects.

Severing of fingers & toes.

Do not open or remove safety shields while engine is running.

Careful backing up, watch for other people.

Careful going forward, watch for other people.

Moving sharp blades under cover

WARNING
SERIOUS INJURY OR DEATH MAY RESULT FROM MACHINE ROLLOVER
● Failure to follow these instructions could result in serious injury or death
● Do not operate machine on steep slopes or near drop offs
● Avoid sharp and/or quick turns
● Do not exceed the machine weight rating of the ROPS
● Always use seat belt
● Do not jump if machine tips
● If ROPS is foldable
● Always keep the ROPS fully extended
● WHEN ROPS MUST BE DOWN-
● Do not use seat belt
● Drive with extra care
● If equipped with seat platform, Do not operate machine without seat platform pins in place
286304500

ROPS warning decal

SAFETY INSTRUCTIONS

Safety Instructions

These instructions are for your safety. Read them carefully.

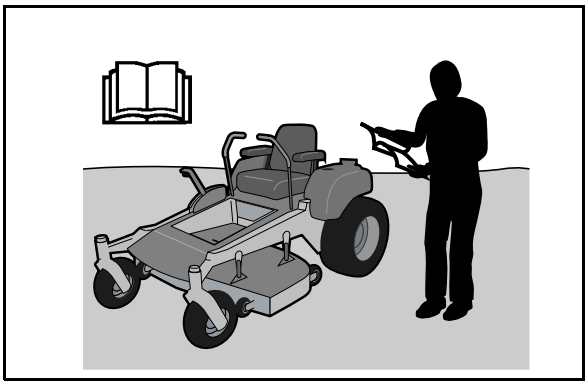
WARNING!

This symbol means that important safety instructions need to be emphasized. It concerns your safety.

IMPORTANT: THIS CUTTING MACHINE IS CAPABLE OF AMPUTATING HANDS AND FEET AND THROWING OBJECTS. FAILURE TO OBSERVE THE FOLLOWING SAFETY INSTRUCTIONS COULD RESULT IN SERIOUS INJURY OR DEATH.

General Operation

- Read, understand, and follow all instructions on the machine and in the manual before starting.
- Do not put hands or feet near rotating parts or under the machine. Keep clear of the discharge opening at all times.
- Only allow responsible adults, who are familiar with the instructions, to operate the machine.
- Clear the area of objects such as rocks, toys, wire, etc., which could be picked up and thrown by the blades.
- Be sure the area is clear of bystanders before operating. Stop machine if anyone enters the area.
- Never carry passengers. The machine is only intended for use by one person.
- Do not mow in reverse unless absolutely necessary. Always look down and behind before and while backing.
- Never direct discharged material toward anyone. Avoid discharging material against a wall or obstruction. Material may ricochet back toward the operator. Stop the blades when crossing gravel surfaces.
- Do not operate machine without the entire grass catcher, discharge guard, or other safety devices in place and working
- Slow down before turning.
- Never leave a running machine unattended. Always turn off blades, set park brake, stop engine, and remove keys before dismounting.



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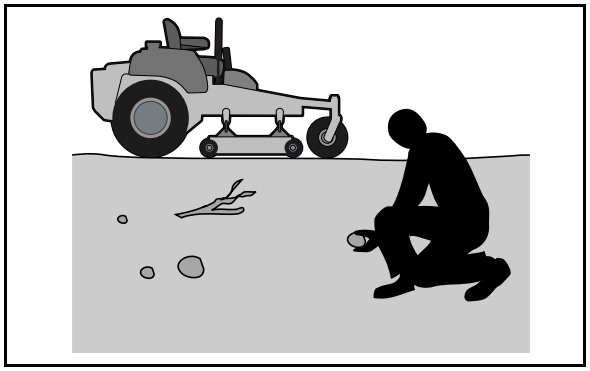
Read the operator's manual before starting the machine



8011-513

Clear the area of objects before mowing

8011-520

Never take passengers

SAFETY INSTRUCTIONS

- Disengage blades when not mowing. Shut off engine and wait for all parts to come to a complete stop before cleaning the machine, removing the grass catcher, or unclogging the discharge guard.
- Operate machine only in daylight or good artificial light.
- Do not operate the machine while under the influence of alcohol or drugs.
- Watch for traffic when operating near or crossing roadways.
- Use extra care when loading or unloading the machine into a trailer or truck.
- Always wear eye protection when operating machine.
- Data indicates that operators, age 60 years and above, are involved in a large percentage of riding mower-related injuries. These operators should evaluate their ability to operate the riding mower safely enough to protect themselves and others from serious injury.
- Follow the manufacturer's recommendation for wheel weights or counterweights.
- Anyone who operates this machine must first read and understand this Operation Manual. Local laws may regulate the age of the user.
- Keep machine free of grass, leaves or other debris build-up which can touch hot exhaust / engine part and burn. Do not allow the mower deck to plow leaves or other debris which can cause build-up to occur. Clean any oil or fuel spillage before operating or storing the machine. Allow machine to cool before storage.

WARNING!

Engine exhaust and certain vehicle components contain or emit chemicals considered to cause cancer, birth defects, or other reproductive system damage. The engine exhaust contains carbon monoxide, which is a odorless, colorless, poisonous gas. Do not use the machine in enclosed spaces.

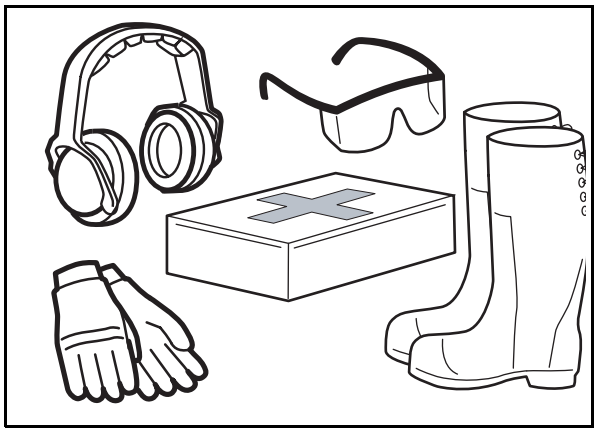
SAFETY INSTRUCTIONS

Personal Safety Equipment

WARNING!

When using the machine, approved personal protective equipment (shown in illustrations) shall be used. Personal protective equipment cannot eliminate the risk of injury but it will reduce the degree of injury if an accident does happen. Ask your retailer for help in choosing the right equipment.

- Make sure that you have first aid equipment close at hand when using the machine.
- Never use the machine when barefoot. Always wear protective shoes or boots, preferably with steel toecaps.
- Always wear approved protective glasses or a full visor when assembling or driving.
- Always wear gloves when handling the blades.
- Never wear loose clothing that can get caught in moving parts.
- Use ear protectors to avoid damage to hearing.



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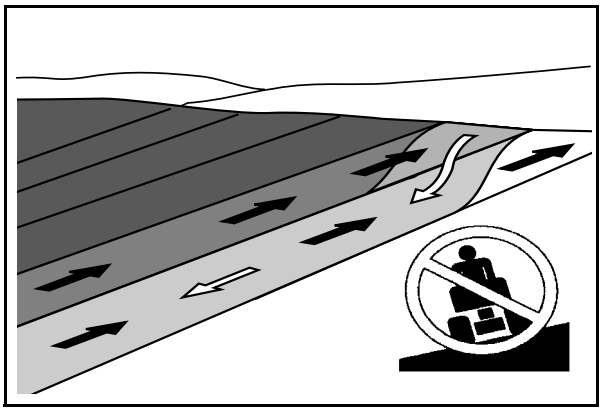
Personal protective equipment

Slope Operation

Slopes are a major factor related to loss of control and tip-over accidents, which can result in severe injury or death. Operation on all slopes requires extra caution. If you cannot back up the slope or if you feel uneasy on it, do not mow it.

- Mow up and down slopes (10 degrees maximum), not across.
- Watch for holes, ruts, bumps, rocks, or other hidden objects. Uneven terrain could overturn the machine. Tall grass can hide obstacles.
- Choose a low ground speed so that you will not have to stop while on the slope.
- Do not mow on wet grass. Tires may lose traction.
- Avoid starting, stopping, or turning on a slope. If the tires lose traction, disengage the blades and proceed slowly straight down the slope.
- Keep all movement on the slopes slow and gradual. Do not make sudden changes in speed or direction, which could cause the machine to roll over.



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Mow up and down, not side-to-side

WARNING!

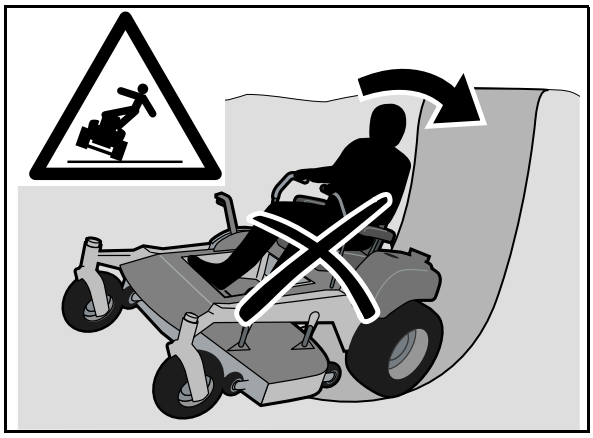
Do not drive up or down hills with slopes greater than 10 degrees. And do not drive across any slopes.

- Use extra care while operating machine with grass catchers or other attachments; they can affect the stability of the machine. Do not use on steep slopes.
- Do not try to stabilize the machine by putting your foot on the ground.
- Do not mow near drop-offs, ditches, or embankments. The machine could suddenly roll over if a wheel is over the edge or if the edge caves in.

Children

Tragic accidents can occur if the operator is not alert to the presence of children. Children are often attracted to the machine and the mowing activity. *Never* assume that children will remain where you last saw them.

- Keep children out of the mowing area and in the watchful care of a responsible adult other than the operator.
- Be alert and turn machine off if a child enters the area.
- Before and while backing, look behind and down for small children.
- Never carry children, even with the blades shut off. They may fall off and be seriously injured or interfere with safe machine operation. Children who have been given rides in the past may suddenly appear in the mowing area for another ride and be run over or backed over by the machine.
- Never allow children to operate the machine.
- Use extra care when approaching blind corners, shrubs, trees, or other objects that may block your view of a child.



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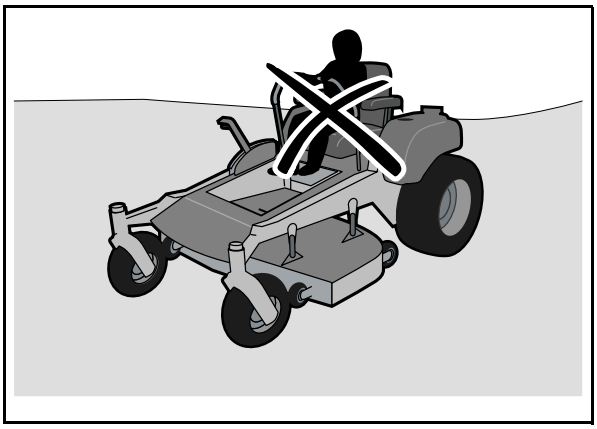
Be extra cautious when driving on slopes



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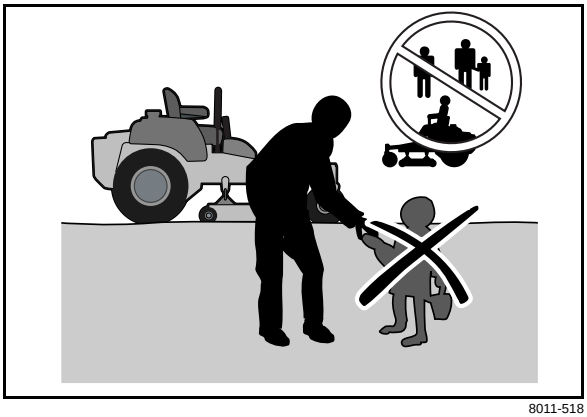
Never allow children to operate the machine



8011-518

Keep children away from the work area

Maintenance

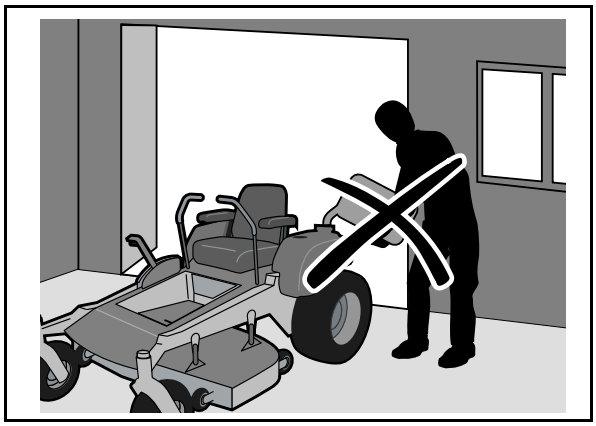
WARNING!

The engine must not be started when the driver's floor plate or any protective plate for the mower deck's drive belt is removed.

Safe Handling of Gasoline

To avoid personal injury or property damage, use extreme care in handling gasoline. Gasoline is extremely flammable and the vapors are explosive.

- Extinguish all cigarettes, cigars, pipes, and other sources of ignition.
- Use only approved gasoline container.
- Never remove gas cap or add fuel with the engine running. Allow engine to cool at least two (2) minutes before refueling.
- Never fuel the machine indoors.
- Never store the machine or fuel container where there is an open flame, spark, or pilot light such as on a water heater or other appliances.
- Before you begin refueling, minimize the risk of static electricity by touching a metal surface.
- Never fill containers inside a vehicle or on a truck or trailer bed with plastic liner. Always place containers on the ground away from your vehicle when filling.
- Remove gas-powered equipment from the truck or tailer and refuel it on the ground. If this is not possible, then refuel such equipment with a portable container, rather than from a gasoline dispenser nozzle.
- Keep the nozzle in contact with the rim of the fuel tank or container opening at all times until fueling is complete. Do not use a nozzle lock-open device.
- If fuel is spilled on clothing, change clothing immediately.
- Never overfill fuel tank. Replace gas cap and tighten securely.
- Do not start the engine near spilled fuel.
- Never use gasoline as a cleaning agent.
- If leaks arise in the fuel system, the engine must not be started until the problem has been resolved.



8011-516

Never fill the fuel tank indoors

WARNING!

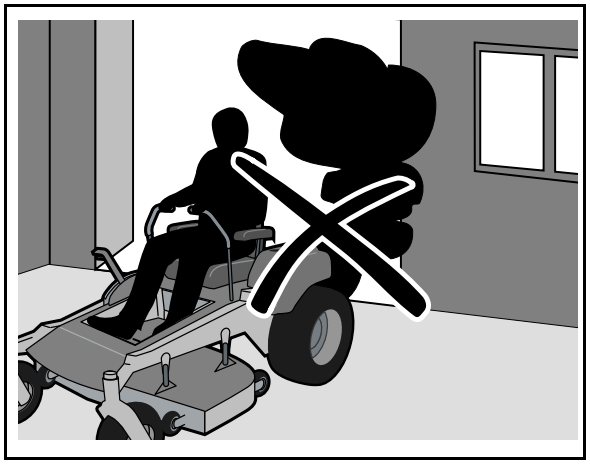
The engine and the exhaust system, become very hot during operation.
Risk for burns if touched.

Allow engine and exhaust system to cool at least two (2) minutes before refueling

- Check the fuel level before each use and leave space for the fuel to expand, because the heat from the engine and the sun may otherwise cause the fuel to expand and overflow.

General Maintenance

- Never operate machine in a closed area.
- Keep all nuts and bolts tight to be sure the equipment is in safe working condition.
- Never tamper with safety devices. Check their proper operation regularly.
- Keep machine free of grass, leaves, or other debris build-up. Clean oil or fuel spillage and remove any fuel-soaked debris. Allow machine to cool before storing.
- If you strike a foreign object, stop and inspect the machine. Repair, if necessary, before restarting.
- Never make any adjustments or repairs with the engine running.
- Check grass catcher components and the discharge guard frequently and replace with manufacturer's recommended parts, when necessary.
- Mower blades are sharp. Wrap the blade or wear gloves, and use extra caution when servicing them.
- Check brake operation frequently. Adjust and service as required.
- Maintain or replace safety and instruction labels, as necessary.
- Do not modify safety equipment. Check regularly to be sure it works properly. The machine must not be driven with defective or unmounted protective plates, protective cowlings, safety switches, or other protective devices.
- Do not change the settings of governors and avoid running the engine with overly high engine speeds. If you run the engine too fast, you risk damaging the machine components.
- Be very careful when handling battery acid. Acid on skin can cause serious corrosive burns. If you spill battery acid on your skin, rinse immediately with water.



8011-515

Never drive the machine in an enclosed space

Always use protective glasses when handling the battery.

WARNING!

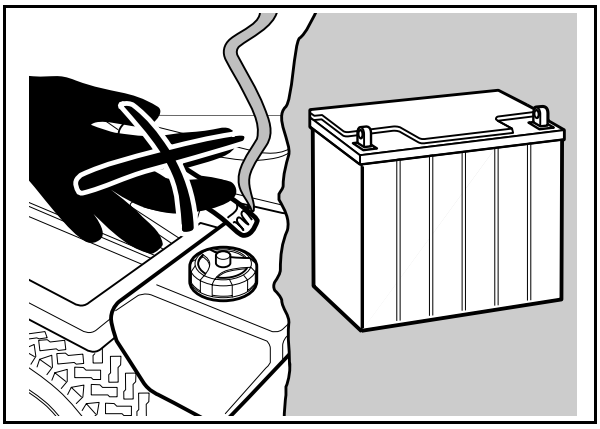
The battery contains lead and lead compounds, chemicals that are considered to cause cancer, birth defects, and other reproductive system damage. Wash your hands after handling the battery.

- Acid in the eyes can cause blindness, contact a doctor immediately.
- Be careful when servicing the battery. Explosive gases form in the battery. Never perform maintenance on the battery when smoking or near open flames or sparks. The battery can explode and cause serious injury/damage.
- Ensure that nuts and bolts, especially the fastening bolts for the blade attachments, are properly tightened, torqued and that the equipment is in good condition.
- Do not modify safety equipment. Check regularly to be sure it works properly. The machine must not be driven with defective or unmounted protective plates, protective cowlings, safety switches, or other protective devices.
- Do not change the settings of governors and avoid running the engine with overly high engine speeds. If you run the engine too fast, you risk damaging the machine components.
- Sparking can occur when working with the battery and the heavy cables of the starter circuit. This can cause battery explosion, fire or eye injury. Sparking in this circuit can not occur after the chassis cable (normally negative, black) is removed from the battery.

WARNING!

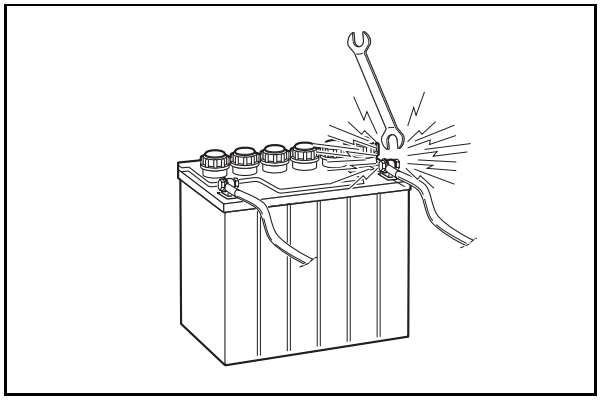
Avoid electrical sparking and its consequences by the following routines:

- Use protective goggles.
- Ensure that the fuel filler cap is mounted tightly and no flammable substances is stored in an open vessel.
- Never work with the starter circuit if there is spilled fuel.
- Disconnect the chassis cable from the battery first and reconnect it last.
- Do not make a bridge short circuit across the starter relay to run the starter.
- Never use the machine indoors or in spaces lacking proper ventilation. The exhaust fumes contain carbon monoxide, an odorless, poisonous, and lethal gas.



6003-009

Do not smoke when performing maintenance on the battery. The battery can explode and cause serious injury/damage



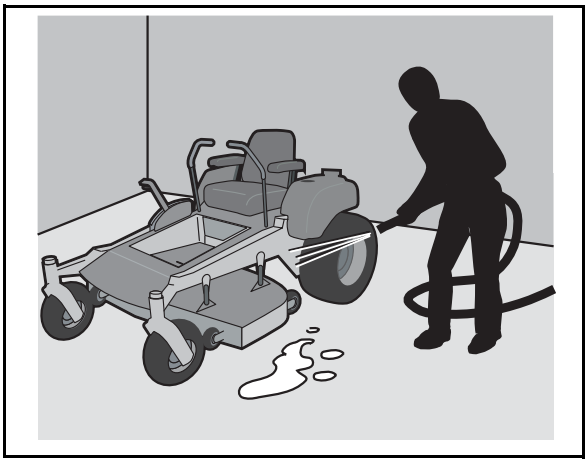
8009-728

Risk of sparking

- Stop and inspect the equipment if you run over or into anything. If necessary, make repairs before starting.
- Never make adjustments with the engine running.
- The machine is tested and approved only with the equipment originally provided or recommended by the manufacturer. Only use approved repair parts for the machine.
- The blades are sharp and can cause cuts and gashes. Wrap the blades or use protective gloves when handling them.
- Check the park brake's functionality regularly. Adjust and service as necessary.
- The mulch blades should only be used in familiar areas when higher quality mowing is desired.
- Reduce the risk of fire by removing grass, leaves, and other debris that may have accumulated on the machine. Allow the machine to cool before putting it in storage.
- Regularly clean deck and underside of deck, avoid spraying engine and electrical components with water.

Transport

- The machine is heavy and can cause serious crushing injuries. Be extra cautious when it is loaded on or unloaded from a vehicle or trailer.
- Use an approved trailer to transport the machine. Activate the park brake, turn off the fuel supply, and fasten the machine with approved fastening devices, such as bands, chains, or straps, when transporting.
- Do not operate this machine on public roadways.
- Check and abide by local traffic regulations before transporting the machine on any road.
- Do not tow this machine, it may cause damage to the drive system.
- Do not tow any trailers, etc. with this mower. They may jackknife or overturn causing damage to the mower and possibly serious injury to the operator.



8011-644

Avoid spraying engine and electrical components

WARNING!

Escaping hydraulic oil under pressure can have sufficient force to penetrate the skin, causing serious injury. If injured by escaping fluid, see a doctor at once. Serious infection or reaction can develop if proper medical treatment is not administered immediately.

IMPORTANT INFORMATION

The park brake is not sufficient to lock the machine in place during transport. Ensure that the machine is well fastened to the transport vehicle. Always reverse the machine onto the transport vehicle to avoid tipping it over.

SAFETY INSTRUCTIONS

Rollover Protection System ROPS

The ROPS increases the basic weight of the unit by 42 lbs/19 kg. The ROPS on the US units are standard, on the European units the ROPS is an accessory.

WARNING!

The structures capability may be impaired by structural damage if overturned, or alteration occurs. If any of these conditions take place, the total structure MUST be replaced.

- Do not use ROPS as a lifting, attaching or anchoring point.
- Do not use ROPS for wrecking or towing.
- Do not exceed Max GVW: 2822 lbs/1283 kg.
- Read machine operator´s manual before each use.
- Securely fasten your seat belt if the unit has a ROPS.
- Where possible, avoid operating the unit near ditches, embankments and holes.
- Reduce speed when turning, crossing slopes and on rough, slick or muddy surfaces.
- Stay off slopes too steep for safe operation.
- Watch where you are going, especially at row ends, on roads and around trees.
- Do not permit others to ride.
- Operate the mower smoothly - no jerky turns, starts or stops.
- When mower is stopped, set brakes securely and use park brake.
- If any part of ROPS is damaged, the entire ROPS must be replaced.
- Check all bolts including seat belt for correct torque before each use.
- Check ROPS structure for damage before each use.
- ROPS bar is NOT intended for use in sub zero temperatures.

Customer Responsibilities

- Read and observe the safety rules.
- Follow a regular schedule in maintaining, caring for and using your mower.
- Follow the instructions under "Maintenance” and "Storage” sections of this owner’s manual.

WARNING!

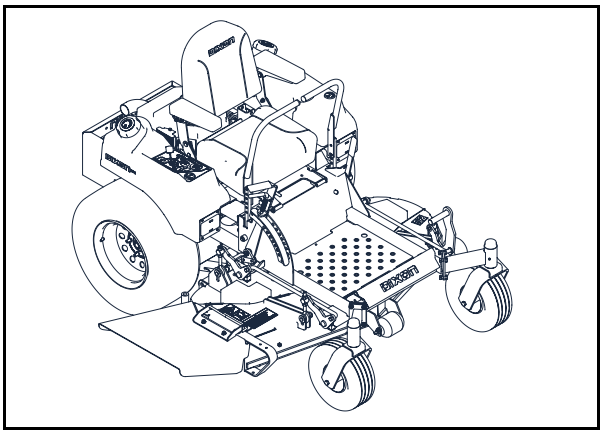
This mower is equipped with an internal combustion engine and should not be used on or near any unimproved forest-covered, bush-covered or grass-covered land unless the engine’s exhaust system is equipped with a spark arrester meeting applicable local or state laws (if any). If a spark arrester is used, it should be maintained in effective working order by the operator.

A spark arrester for the muffler is available through your authorized Dixon dealer.

Controls

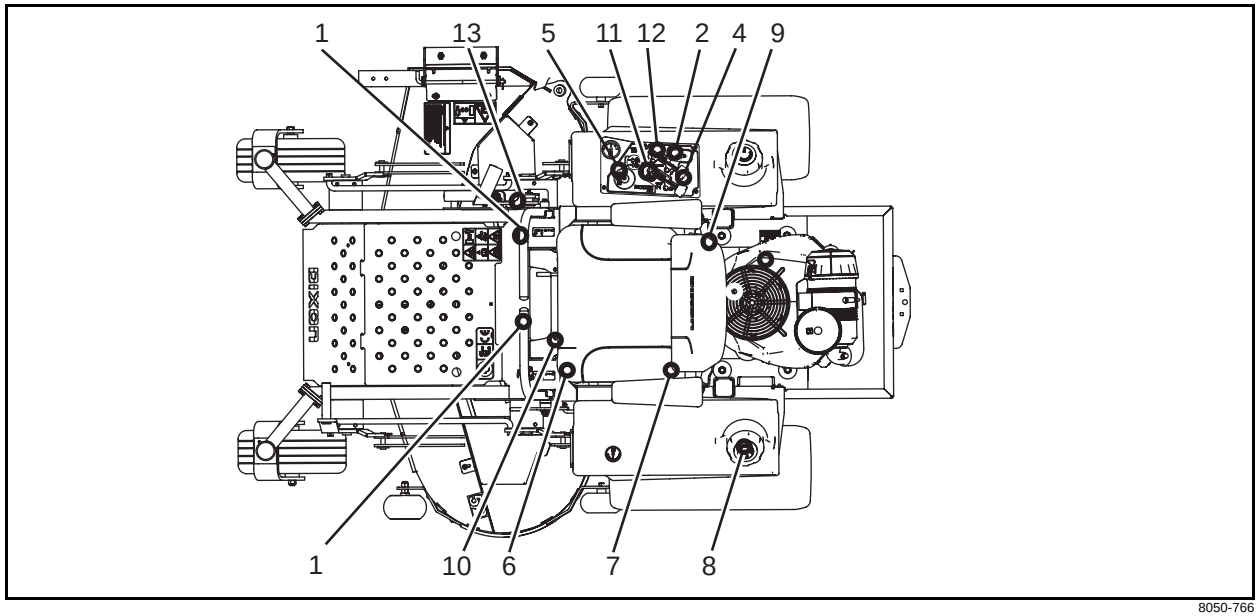
This operator's manual describes the Dixon Zero Turn Rider. The rider is fitted with a Honda or Kohler four-stroke V-Twin engine developing 19-25 horse power.

Transmission from the engine is made via two belt-driven hydraulic pumps, which in turn drive a hydraulic motor for each drive wheel. Using the left and right steering controls, the flow is regulated and thereby the direction and speed.



8050-139

Zero Turn Rider



8050-766

Locations of the controls

Controls

		Page			Page
1.	Motion control, left and right	17	8.	Fuel tank cap	20
2.	Hour meter	18	9.	Fuel shut off valve	21
3.	Park brake	18	10.	Seat adjustment lever	21
4.	Blade-switch	19	11.	Choke control	21
5.	Ignition switch	19	12.	Throttle control	22
6.	Fuses	19	13.	Lifting lever, mower deck	22
7.	Seat locking device	20			

1. Motion Control Levers

The machine's speed and direction are continuously variable using the two steering controls. The steering controls can be moved forward or backward about a neutral position. Furthermore, there is a neutral position, which is locked if the steering controls are moved outward.

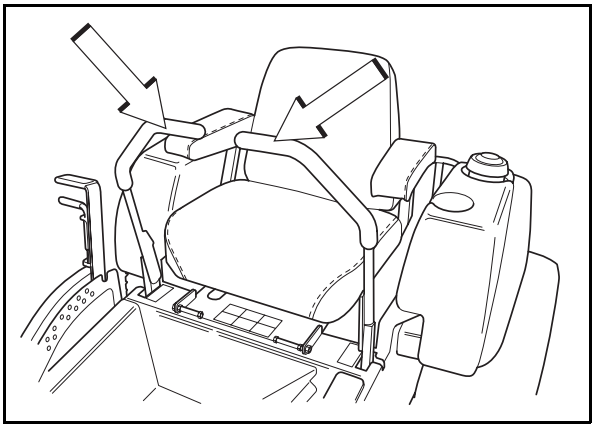
When both controls are in the neutral position (N), the machine stands still.

By moving both controls an equal amount forward or backward, the machine moves in a straight line forward or backward respectively.

In order, for example, to turn right while moving forward, move the right control towards the neutral position. The rotation of the right wheel is reduced and the machine turns to the right.

Zero turn can be achieved by moving one control backward (behind the neutral position) and carefully moving the other steering control forward from its neutral position. The rotation direction when zero turning is determined by which steering control is moved backward behind the neutral position. If the left steering control is pulled backward, the machine turns to the left. Use extra care when using this maneuver.

If the steering controls are in uneven positions when standing still they can be adjusted using the adjustment screws for the steering lever, not the link system, for the controls.

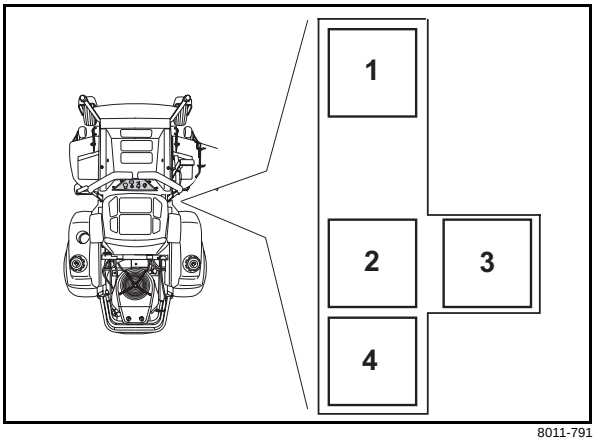


8011-788-1

Steering controls

WARNING!

The machine can turn very rapidly if one steering control is moved much further forward than the other.



8011-791

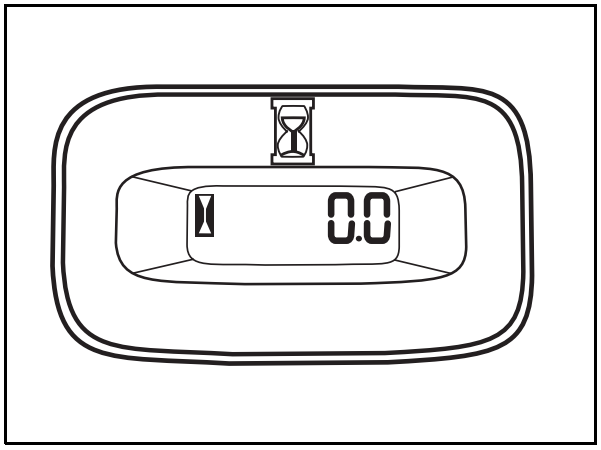
1 Forward
2 Neutral
3 Neutral slot, Neutral lock
4 Reverse

Motion control lever pattern (right side)

2. Hour Meter

The hour meter displays the total operating time.

It will flash CHG OIL (Change Oil) at 50 hour intervals. The flash duration is one hour before and one hour after the interval. The CHG OIL icon will come on and shut off automatically. The hour meter can not be manually reset.

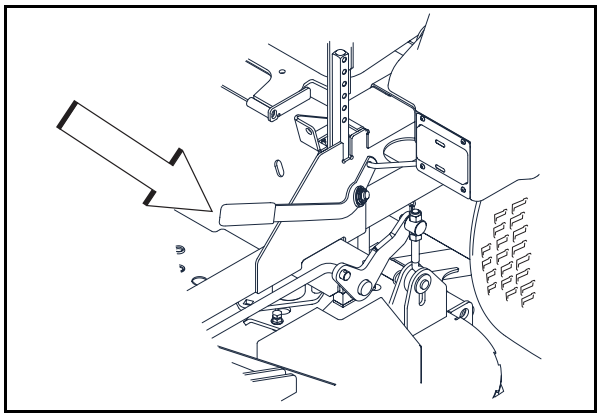


8050-140

Hour meter

3. Park Brake

The park brake is found on the left of the machine. Pull the lever backward to activate the brake and forward to release it.

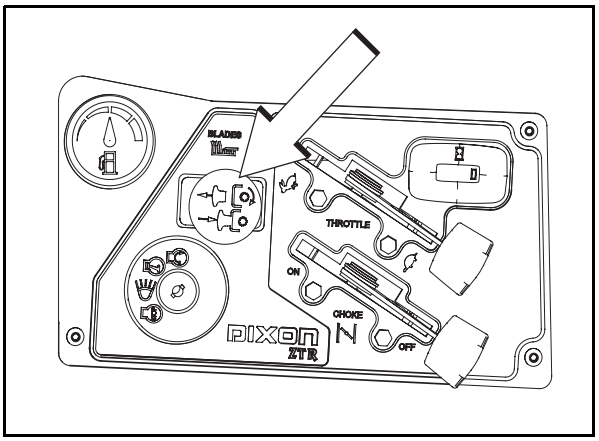


8050-138

Park brake released

4. Blade switch

In order to engage the mower deck, pull the knob out; the mower blades are disengaged when the knob is depressed.



8050-142

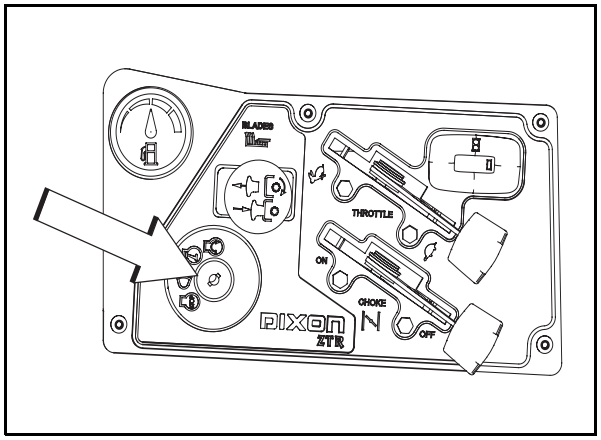
Blade Switch

5. Ignition Switch

The ignition key is placed in the ignition switch on the driver's panel and is used to start and stop the engine.

IMPORTANT INFORMATION

Do not run the starter for more than five seconds each time. If the engine does not start, wait about 10 seconds before re-trying.



8050-141

Ignition key and hour meter

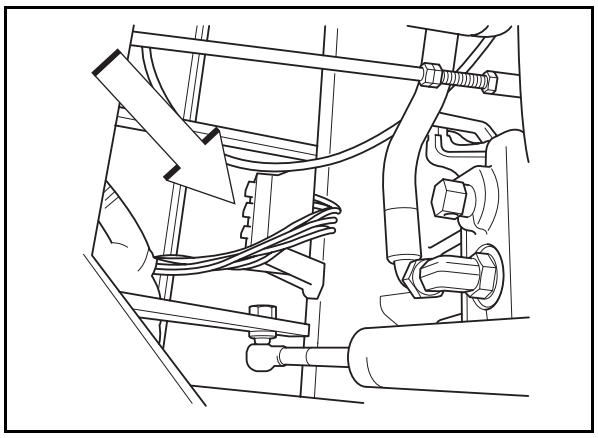
6. Fuses

The fuses are located in a holder to the left of the hydraulic tank. They are flat pin fuses of the same type used in automobiles.

There are three fuses, as well as socket for one spare fuse.

Fuse ratings and functions:

- 20 A, Primary fuse.
- 7.5 A, Mower deck coupling.
- 7.5.A, Accessory outlet.
- Socket for spare fuse.

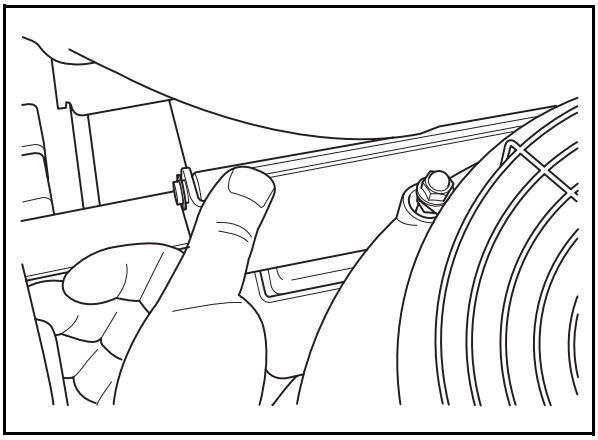


8011-443

Fuses

7. Seat Locking Device

Under the rear part of the seat is a locking device that locks the seat into its folded position. The seat has hinges at the front edge and can be folded forward when the locking device is pushed.



8011-440

The seat's locking device

8. Refueling

The machine has two fuel tanks, one on each side just behind the seat. The tanks take 5.7 gallons (22 liters) each.

The engine will run on a minimum of 87-octane unleaded gasoline (no oil mix). Environmentally adapted alkylate gasoline can be used beneficially. See also Technical Data concerning methanol and ethanol fuels.

WARNING!

Gasoline is highly flammable. Observe caution and fill the tank outdoors (see the safety rules).

WARNING!

The engine and the exhaust system, become very hot during operation.

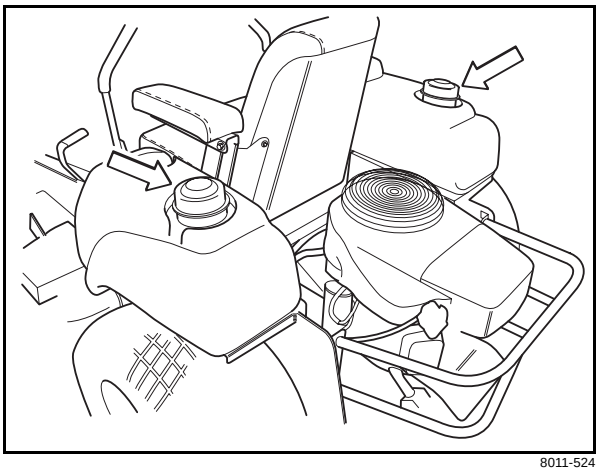
Risk for burns if touched.

allow engine and exhaust system to cool at least two (2) minutes.

WARNING!

Fill to bottom of filler neck. Do not overfill. Wipe off any spilled oil or fuel. Do not store, spill or use gasoline near an open flame.

When operating in temperatures below 32 °F. (0 °C.), use fresh, clean winter grade gasoline to help insure good cold weather starting.



8011-524

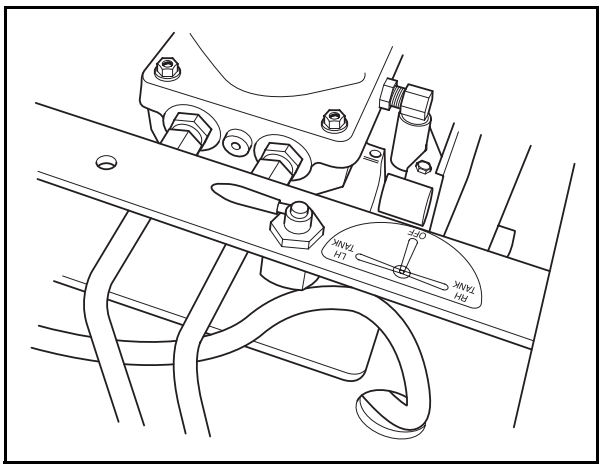
Fuel tanks

IMPORTANT INFORMATION

Experience indicates that alcohol blended fuels (called gasohol, ethanol or methanol) can attract moisture which leads to separation and formation of acids during storage. Acidic gas can damage the fuel system of an engine while in storage. To avoid engine problems, the fuel system should be emptied before storage of 30 days or longer. Drain the gas tank, start the engine and let it run until the fuel lines and carburetor are empty. Use fresh fuel the next season. See Storage Instructions for additional information. Never use engine or carburetor cleaners in the fuel tank or permanent damage may occur.

9. Fuel Shut Off Valve

The fuel shut off valve is located at the right rear of the seat. The valve has three positions; right tank, left tank and center is the off position.

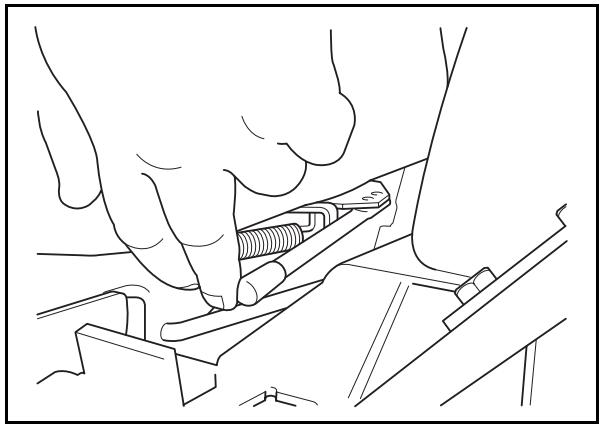


8011-506

Fuel valve

10. Seat Adjustment Lever

The seat can be adjusted lengthways. When making adjustments, the lever under the front edge of the seat is moved to the left (as seen by the driver in the seat), after which the seat can be moved backward or forward.



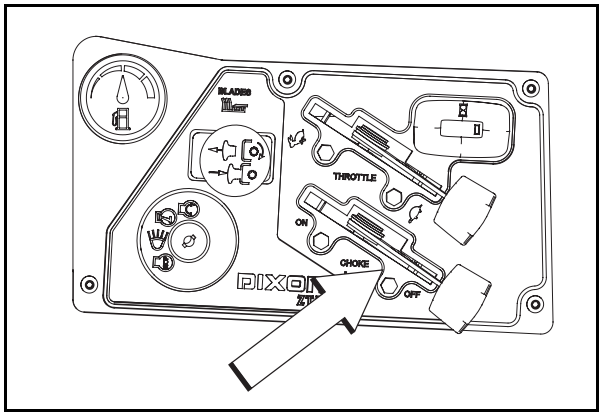
8011-441

Lengthways adjustment

11. Choke Control

The choke control is used for cold starts in order to provide the engine with a richer fuel mixture.

For cold starts the control should be pulled out.



8050-143

Choke control

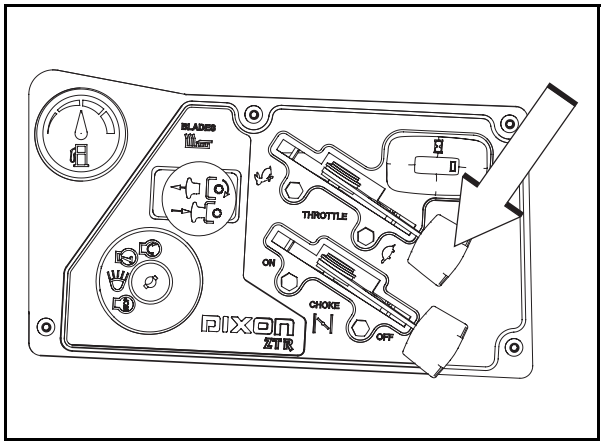
12. Throttle Control

The throttle control regulates the engine speed and thereby the rate of rotation of the blades, assuming the blade switch is pulled out, see Engaging the Mower Deck.

In order to increase or decrease the engine speed, the control is moved downward or upward respectively.

Avoid idling the engine for long periods, as there is a risk of fouling the spark plugs.

USE FULL THROTTLE WHEN MOWING, for best mower performance and battery charging.



8050-144

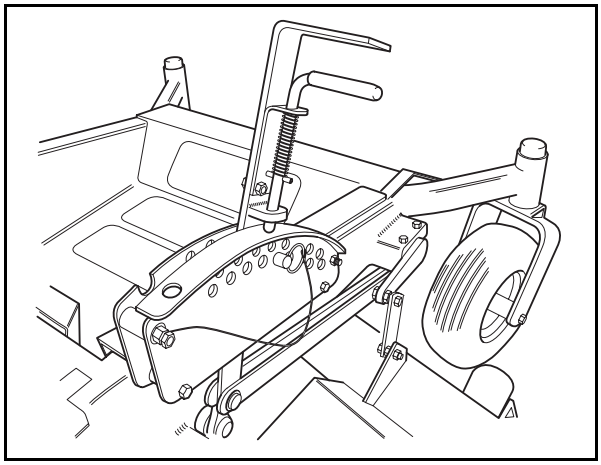
Throttle control

13. Lifting Lever for the Mower Deck

The lifting lever is used to place the mower deck in the transport position or one of the 14 different cutting height positions.

The cutting height is set by placing a peg in the hole for the desired cutting height and the peg is then locked on the inside (hidden in the illustration) with the supplied pin.

1. Pull the lever backward to the locked position to engage the transport position. The deck is then raised.
2. Depress the lock handle, counter hold, and move the lifting lever forward toward the peg to engage the set cutting height. The deck is then lowered.
3. The lifting lever can also be used to temporarily adjust the cutting height, such as when passing a minor bump in the lawn.



8011-525-1

The mower deck's lifting lever

IMPORTANT INFORMATION

In order to obtain an even cutting height it is important that the air pressure in all four tires is the same 15 psi (1 bar).

Pump release valves

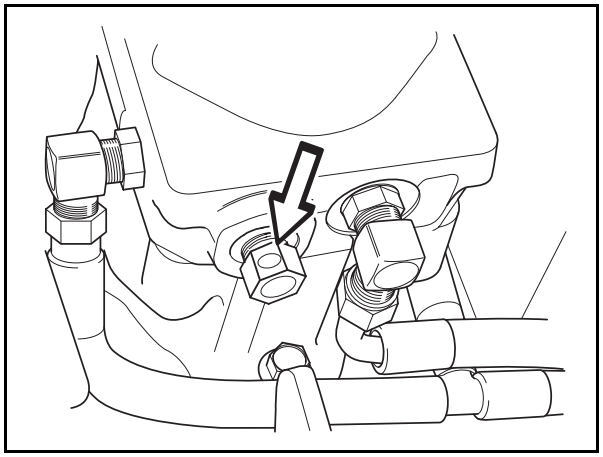
IMPORTANT INFORMATION

Only rotate valve 1/4 - 1/2 turn to release system.

Tighten the valve moderately.

Do not overtighten the valve when closing. That can damage the valve seat.

Pump release valves are located at the pumps. They are used to release the system so the machine may be moved by hand when not running. Tilt seat forward to gain access to the pumps. Use a 5/8” wrench to open valve.

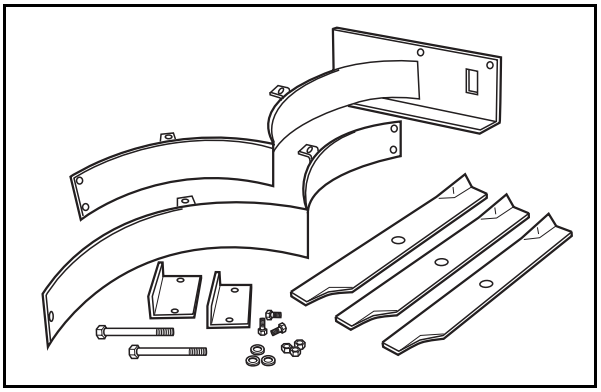


8011-507

Pump release valve

Accessories

For mulching, there is a BioClip attachment available. This is mounted underneath the mower deck and consists of control plates and BioClip blades.



8011-566

BioClip attachment

Operation

Read “Safety Instructions” section and following pages, if you are unfamiliar with the machine.

Training

Zero turn mowers are far more maneuverable than typical riding mowers due to their unique steering capabilities.

We recommend that this section be reviewed in it’s entirety prior to attempting to move the mower under its own power. Additionally, we suggest when first operating mower, use a reduced throttle speed and reduced ground speed by NOT moving control levers to the furthest forward or reverse positions during initial operation, or until operator becomes comfortable with controls. We also suggest first time users, or new users to ZeroTurn mowers to become familiar with the mowers movement on a hard surface, such as concrete or blacktop PRIOR to attempting to operate on turf. Until operator becomes comfortable with mower controls and zero turning capability, they may damage turf due to over aggressive maneuvers.

To move forward and backward

The direction and speed of the mowers movements is effected by the movement of the control lever(s) on each side of mower. The left control lever controls the left wheel motor. The right control lever controls the right wheel motor.

IMPORTANT INFORMATION

When control levers are in the reverse position they return to neutral when released. This may cause the mower to suddenly stop.

First time users should push mower (see “Moving by Hand” in the “Operation” section) to an open, flat area, without other people or vehicles/obstacles near by. In order to move unit under its own power, the operator must be in the seat, start engine (see “Before Starting” in “Operation” section), adjust engine speed to idle, disengage park brake, do not engage blades at this time, rotate control levers inward. As long as the control levers have not been moved forward or backwards, mower will not move. Slowly move both control levers forward slightly, this will allow mower to start moving forward in a straight line. Pull back on control levers to the neutral position and mower should stop moving. Pull back slightly on control levers, this will allow mower to start moving backwards. Push forward on control levers to the neutral position and mower should stop moving.

To turn to the right

While moving in a forward direction, pull the right lever back towards the neutral position while maintaining the position of the left lever, this will slow the rotation of the right wheel and cause the machine to turn in that direction.

To turn to the left

While moving in a forward direction pull the left lever back towards the neutral position while maintaining the position of the right lever, this will slow the rotation of the left wheel and cause the machine to turn in that direction.

To zero turn

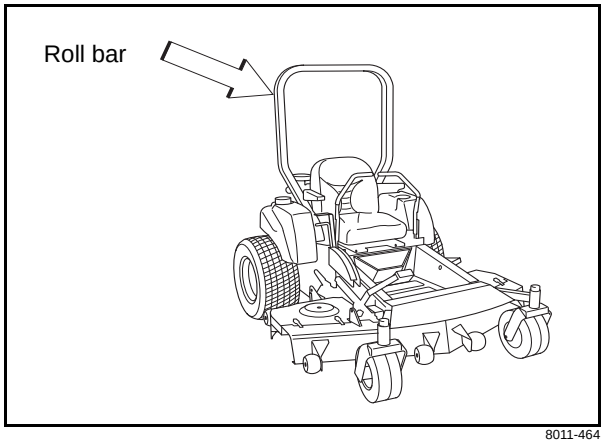
While moving in a forward direction, first pull both control levers back until the mower stops or slows dramatically. Then by alternating one lever slightly to the forward position and the other in the reverse position.

Roll bar and safety belt

Operate the unit with the roll bar in the raised and locked position and use the seat belt. There is no rollover protection when the roll bar is down. If it is necessary to lower roll bar, do not wear the seat belt. Raise the roll bar as soon as clearance permits.

WARNING!

The seat belt must be used when the roll bar is in upright position.



8011-464

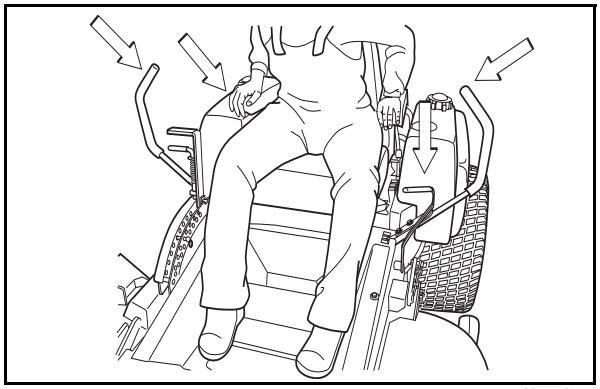
Roll bar in upright position

Before Starting

- Read the sections Safety Instructions and Controls before starting the machine.
- Perform the daily maintenance before starting (see Maintenance Schedule in the Maintenance section).
- Check that there is sufficient fuel in the fuel tanks.
- Adjust the seat to the desired position.

The following conditions must be fulfilled before the engine can be started:

- the driver must be seated on the seat,
- the blade switch for engaging the mower blades must be depressed,
- the park brake must be on,
- both steering controls must be in the locked (outer) neutral position.

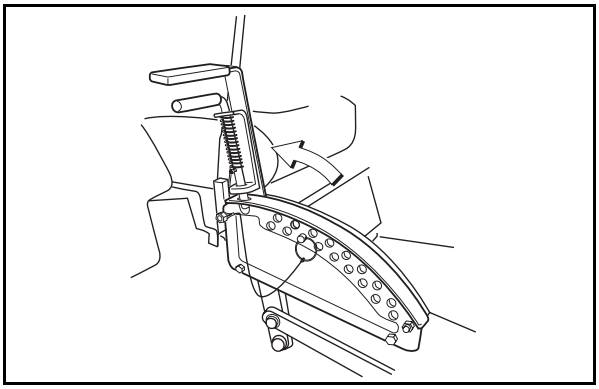


8011-527-1

Start conditions

Starting the Engine

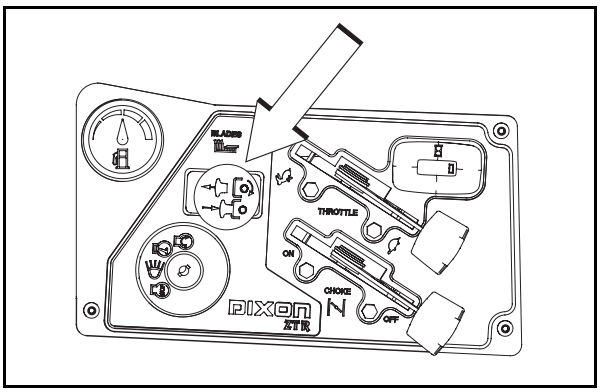
1. Sit on the seat.
2. Raise the mower deck by pulling the lifting lever backward to the locked position (transport position).
3. Activate the park brake.



8011-552

Raise the mower deck

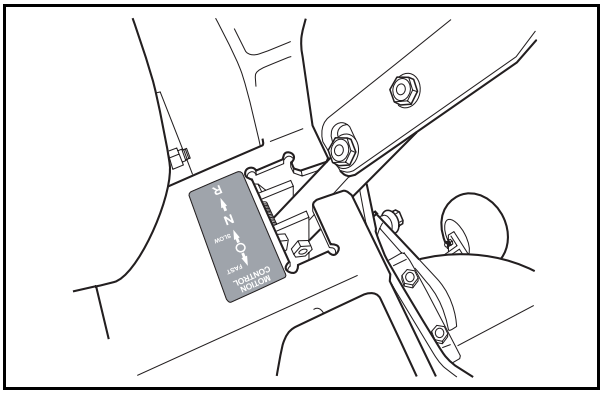
4. Disengage the mower blades by depressing the blade switch.



8050-131

Depress the control for disengaging the mower deck

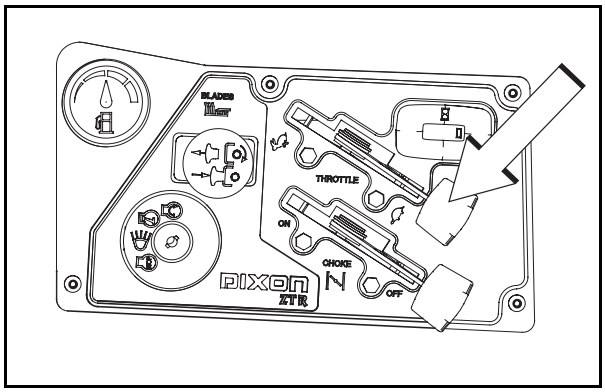
5. Move the steering controls outward to the locked (outer) neutral position.



8011-526

Steering controls in the outward, locked neutral position

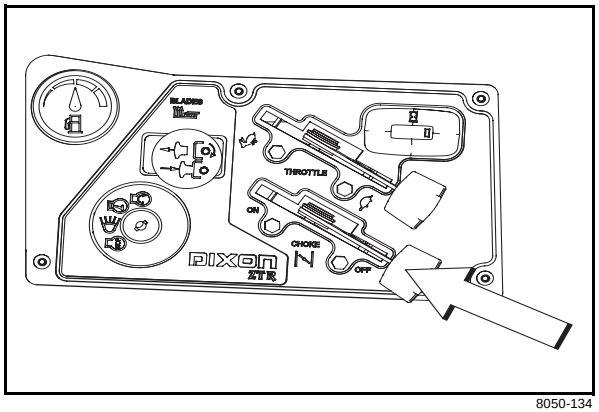
6. Move the throttle to the middle position.



8050133

Set the throttle

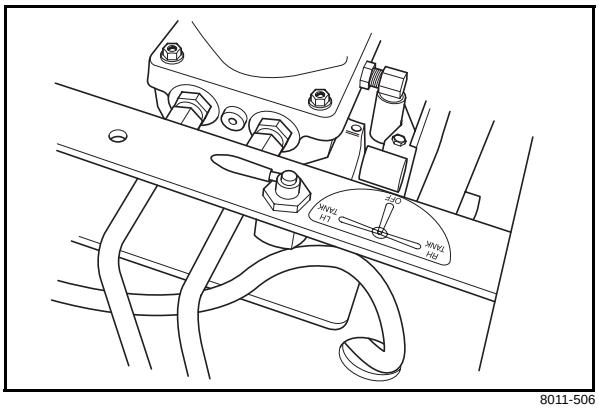
7. If the engine is cold, the choke control shall be pulled out to its extents.



8050-134

Set the choke control

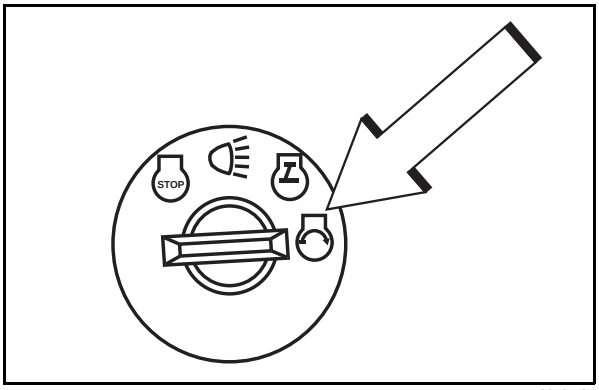
8. Open the fuel valve for the selected fuel tank.



8011-506

Open the fuel valve

9. Press in and turn the ignition key to the start position.



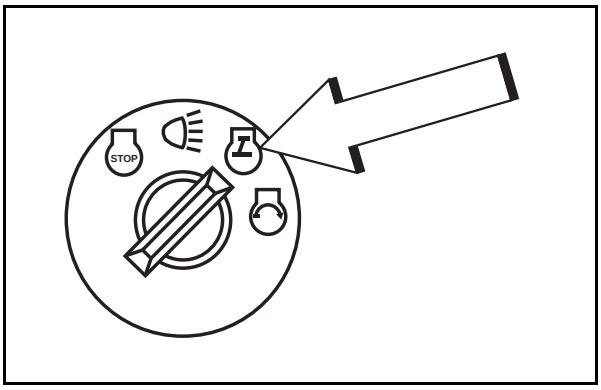
8050-135

Turn to the start position

10. When the engine starts, immediately release the ignition key back to the run position.

IMPORTANT INFORMATION

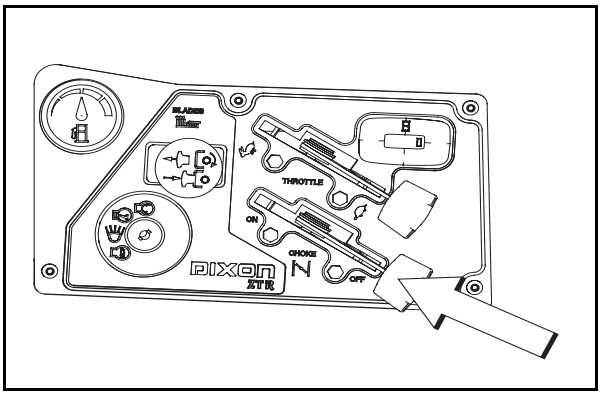
Do not run the starter for more than 5 seconds each time. If the engine does not start, wait about 10 seconds before re-trying.



key-run

Return to run position

11. Slowly slide the choke control to the off position when the engine has started.



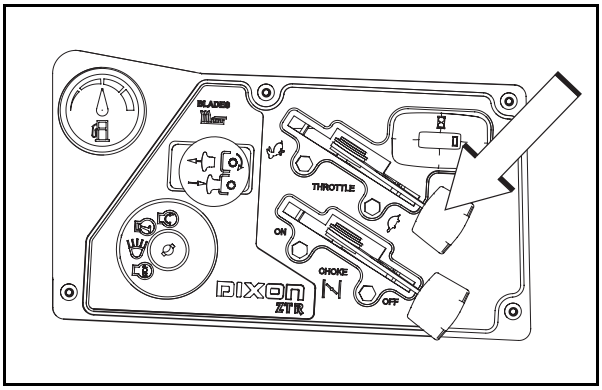
8050-134

Gradually slide the choke control

12. Set the desired engine speed with the throttle.
    Allow the engine to run at a moderate speed, “half throttle”, for 3-5 minutes before loading it too heavily.
    USE FULL THROTTLE WHEN MOWING.

WARNING!

Engine exhaust and certain vehicle components contain or emit chemicals considered to cause cancer, birth defects or other reproductive system damage. The engine exhaust contains carbon monoxide, which is a odorless, colorless, poisonous gas. Do not use the machine in enclosed spaces.



8050-133

Set the engine speed

To start an engine with a weak battery

WARNING!

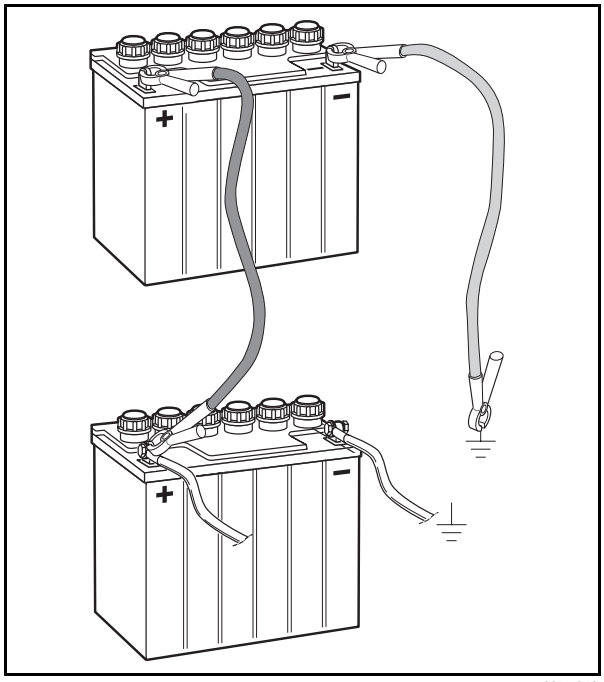
Lead-acid batteries generate explosive gases. Keep sparks, flame and smoking materials away from batteries. Always wear eye protection when around batteries.

If your battery is too weak to start the engine, it should be recharged. (See “Battery” in the the “Maintenance” section).

If “jumper cables” are used for emergency starting, follow this procedure:

IMPORTANT INFORMATION

Your mower is equipped with a 12-volt negative grounded system. The other vehicle must also be a 12-volt negative grounded system. Do not use your mower battery to start other vehicles.



8011-642

Jumper cables connection

To attach jumper cables

- Connect each end of the RED cable to the POSITIVE (+) terminal on each battery, taking care not to short against chassis.
- Connect one end of the BLACK cable to the NEGATIVE (-) terminal of the fully charged battery.
- Connect the other end of the BLACK cable to a good CHASSIS GROUND on the mower with the discharged battery, away from the fuel tank and battery.

To remove cables, reverse order

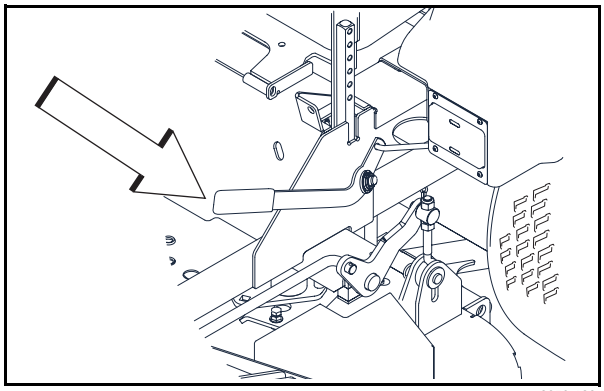
- Remove BLACK cable first from chassis and then from the fully charged battery.
- Remove RED cable last from both batteries.

Running

1. Release the park brake by moving the lever forward.

   Your mower is equipped with an operator presence system. When the engine is running, any attempt by the operator to leave the seat without first setting the park brake will shut off the engine.

2. Move the steering controls to the neutral position (N).

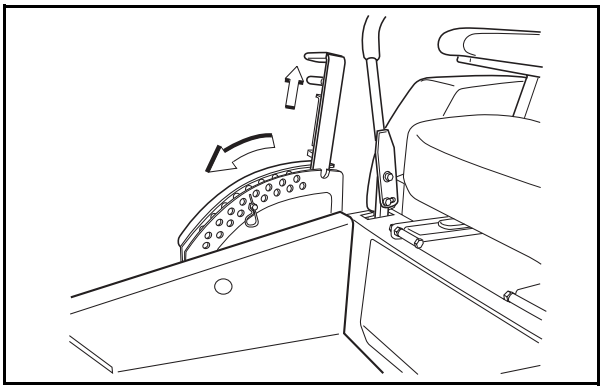


8050-138

Released park brake

3. Select the cutting height by placing the peg in one of the holes. Lock the peg on the inside with the pin.

4. Press in the stop handle, counter hold, and carefully move the lifting lever forward from the transport position toward the peg.



8011-561-1

Cutting height selection

IMPORTANT INFORMATION

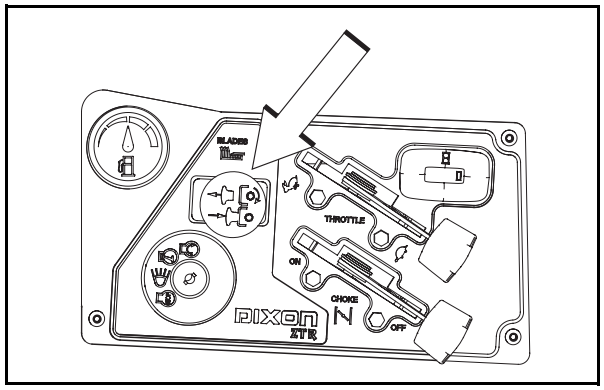
The mower deck's anti-scalp rollers shall be evenly adjusted.

WARNING!

Ensure that no one is near the machine when engaging the blade switch.

5. Engage the mower deck by pulling out the blade switch.
6. Move throttle control to full throttle
7. The machine's speed and direction are continuously variable using the two steering controls. When both controls are in the neutral position, the machine stands still.

   By moving both controls an equal amount forward or backward, the machine moves in a straight line forward or backward respectively.



8050-131

Engaging the mower deck

In order, for example, to turn right while moving forward, move the right control towards the neutral position. The rotation of the right wheel is reduced and the machine turns to the right.

Turning on the spot can be achieved by moving one control backward (behind the neutral position) and carefully moving the other steering control forward from its neutral position.

Operating on hills

Read “Slope Operation” in the “Safety Instructions”.

WARNING!

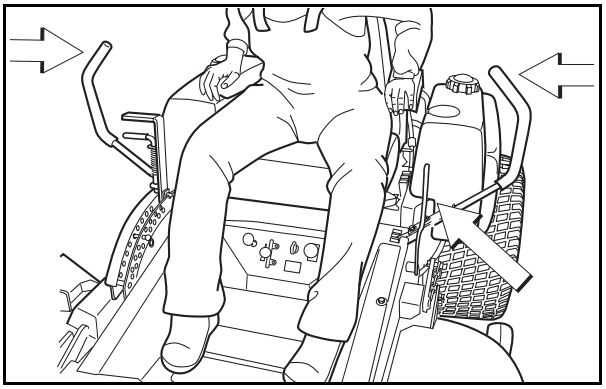
Do not drive up or down hills with slopes greater than 10 degrees. And do not drive across any slopes.

- The slowest speed possible should be used before starting up or down hills.
- Avoid stopping or changing speed on hills.
- If stopping is absolutely necessary, pull drive levers into the neutral position and push to the outside of the unit and engage the park brake.

IMPORTANT INFORMATION

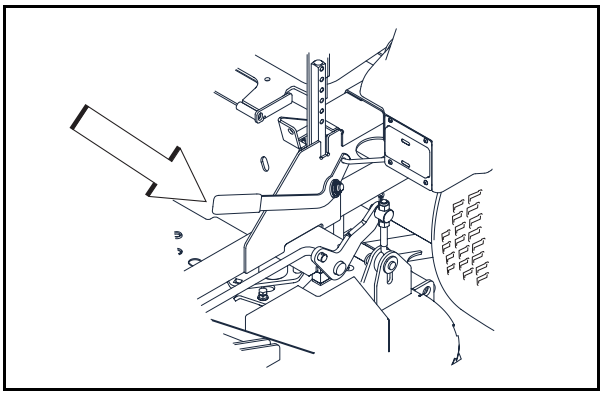
Control levers return to neutral when released. This may cause the mower to suddenly stop.

- To restart movement, release the park brake.
- Pull the control levers back to the center of the mower and press forward to regain forward motion.
- Make all turns slowly.



8011-640-1

Stopping conditions



5080-138

Released park brake

Mowing Tips

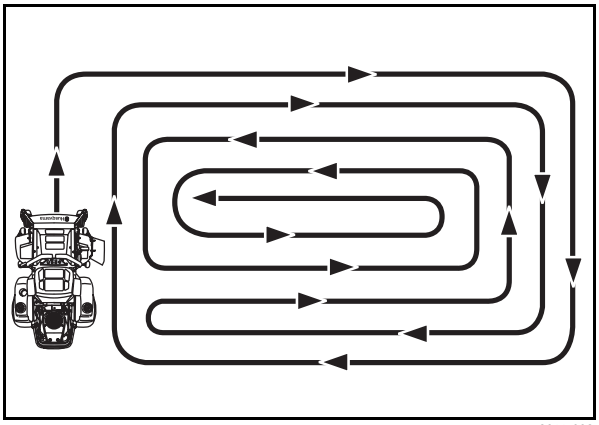
- Observe and flag rocks and other fixed objects to avoid collisions.
- Begin with a high cutting height and reduce it until the desired mowing result is attained.

  The average lawn should be cut to 2½" (64 mm) during the cool season and over 3" (76 mm) during the hot months. For healthier and better looking lawns, mow often after moderate growth.

  For best cutting performance, grass over 6" (15 cm) in height should be mowed twice. Make the first cut relatively high; the second to the desired height.
- The mowing result will be best with a high engine speed (the blades rotate rapidly) and low speed (the rider moves slowly). If the grass is not too long and dense, the driving speed can be increased without negatively affecting the mowing result.
- The finest lawns are obtained by mowing often. The lawn becomes more even and the grass clippings more evenly distributed over the mown area. The total time taken is not increased as a higher operating speed can be used without poor mowing results.
- Avoid mowing wet lawns. The mowing result is poorer because the wheels sink into the soft lawn, clumps build, and the grass clippings fasten under the cowling.
- Hose the mower deck underside with water after each use. When cleaning, the mower deck shall be raised into the transport position. Make sure the mower is cooled and the engine is off.
- Use compressed air to clean top surface of the deck. Avoid flooding water on top surface of the deck.
- When the mulching kit is used, it is important that the mowing interval is frequent.

WARNING!

Clear the area of objects such as rocks, toys, wire, etc., which could be picked up and thrown by the blades.



8011-603

Mowing patterns

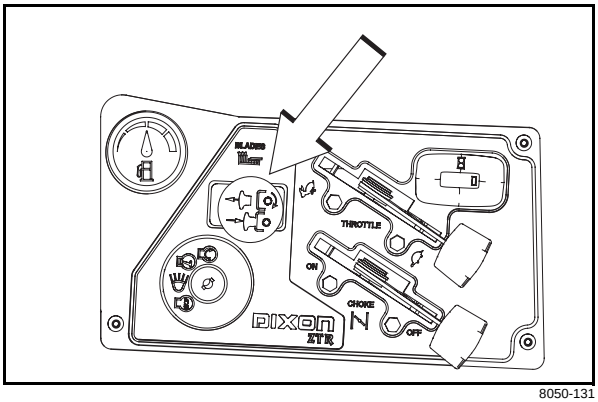
WARNING!

Never drive the rider on terrain that slopes more than 10°. Mow slopes up and down, never side-to-side. Avoid sudden directional changes.

Stopping the Engine

Allow the engine to idle a minute in order to attain normal operating temperature before stopping it, if it has been worked hard. Avoid idling the engine for longer periods, as there is a risk of the spark plugs fouling.

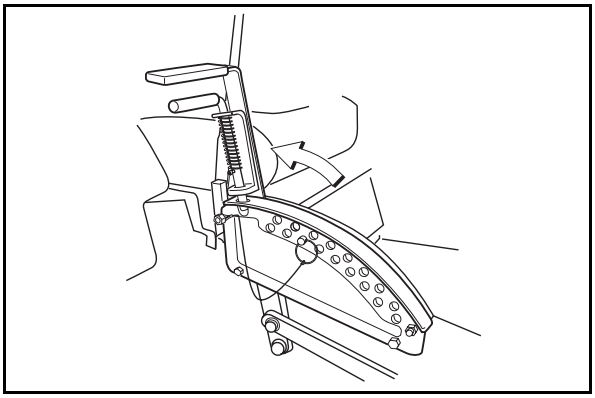
1. Disengage the mower deck by depressing the blade switch.



8050-131

Disengage the mower deck

2. Raise the mower deck by pulling the lifting lever backward to the transport position.
3. When the machine is standing still, activate the park brake by pulling the lever backward.
4. Move the throttle to the minimum position (tortoise symbol). Turn the ignition key to the stop position. Never use choke to stop engine.
5. Move the steering controls outward.
6. Remove key. Always remove key when leaving the mower to prevent unauthorized use.



8011-552

Raise the mower deck with the lifting lever

IMPORTANT INFORMATION

Leaving the ignition switch in any other position than "OFF" will cause the battery to be discharged.

Moving by Hand

In order for the machine to be moved with the engine turned off, the vent screws on both hydraulic pumps must be opened one quarter to one half turn.

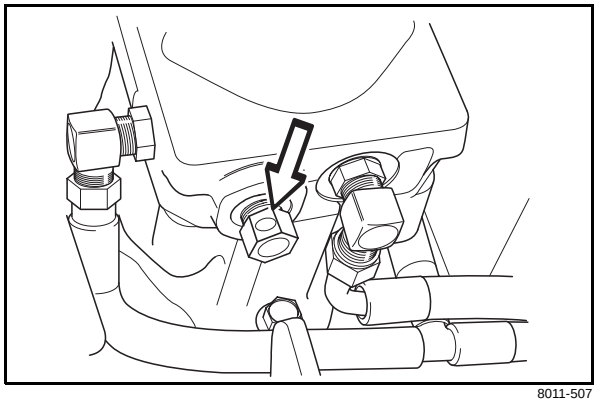
WARNING!

No adjustments or maintenance to carried out unless:

- the engine is stopped,

- the ignition key has been removed,

- the park brake is on.



8011-507

Vent screw on the hydraulic pump

Maintenance

Maintenance Schedule

The following is a list of maintenance procedures that must be performed on the machine. For those points not described in this manual, visit an authorized service workshop. An annual service carried out by an authorized service workshop is recommended to maintain your machine in the best possible condition and to ensure safe operation.

Read “Maintenance” in the “Safety Instructions” section.

● = Described in this manual

❍ = Not described in this manual

Maintenance	Page	Daily		Weekly	At least once each year	Maintenance interval in hours			
		Before	After			25	50	100	300
Check the park brake	44	●							
Check the engine’s oil level (every refueling)	55	●							
Check the hydraulic system’s oil level	53	●							
Check the safety system	39	●							
Check for fuel and oil leakages	-	❍							
Check/clean the engine’s cooling air intake	40		●						
Check the mower deck	45		●						
Check hardware (screws, nuts, etc.)	49		●						
Clean under the mower deck	49		●						
Start the engine and blades, listen for unusual sounds	-		❍						
Check for damage	-		❍						
Thoroughly clean around the engine	-		❍						
Thoroughly clean around the hydraulic system	-		❍						
Clean around belts, belt pulleys, etc.	-		❍						
Check the tire pressures	44					●			
Check battery	37					●			
Sharpen/Replace mower blades	45					●			
Check the fuel pump’s air filter [2)]	43					●			
Clean the engine’s cooling air intake [2)]	40				●	●			
Clean air filter dust cap	40				●	●			
Check/adjust the park brake	-				❍		❍		
Inspect muffler/Spark arrester	-				❍		❍		

MAINTENANCE

Maintenance	Page	Daily		Weekly	At least once each year	Maintenance interval in hours			
		Before	After			25	50	100	300
Check the condition of belts, belt pulleys, etc.	44				●			●	
Change the engine oil [1)]	57				●			●	
Replace the engine oil filter (every 200 hours)	62				●			●	
Clean/replace the spark plugs	38				●			●	
Replace the fuel filter	43				●			●	
Replace the air filter (main cartridge) [2)] (every 200 hours)	40				●			●	
Check the caster wheels (every 200 hours)	49							●	
Clean the cooling fins [2)]	-				❍			❍	
Clean fins of oil cooler (Kohler)					●			●	
Replace the air cleaner's pre-filter [2)] (foam filter)	40				●				●
Check/adjust the mower deck	47				●				●
Change the hydraulic oil (every 300 hours)	-				❍				❍
Dismantle and inspect starter [4)] (every 500 h)									❍
Replace the hydraulic oil filter (every 300 hours)	-				❍				❍
Check the engine valve clearance [4)]	-				❍				❍
Perform the 300-hour service [4)]	82				❍				❍
Lubricate according to Lubrication Schedule	52		●	●	●	●	●	●	●

[1)] First change after 8 hours. When operating with a heavy load or at high ambient temperatures, replace every 50 hours. [2)] In dusty conditions, cleaning and replacement are required more often. [3)] For daily use, the machine should be lubricated twice weekly. [4)] Performed by authorized service workshop.

● = Described in this manual

❍ = Not described in this manual

WARNING!

No adjustments or maintenance to be carried out unless:

- **The engine is stopped.**
- **The ignition key has been removed.**
- **The park brake is on.**

Battery

Your mower is equipped with a maintenance free battery and does not need servicing. However, periodic charging of the battery with an automotive type battery charger will extend its life.

- Keep battery and terminals clean.
- Keep battery bolts tight.
- Recharge at 6-10 amperes for 1 hour

To clean battery and terminals

Corrosion and dirt on the battery and terminals can cause the battery to “leak” power.

1. Lift seat and rotate forward.
2. Remove the red terminal guard.
3. Disconnect BLACK battery cable first, then the RED battery cable and remove the battery from the machine.
4. Rinse the battery with plain water and dry.
5. Clean terminals and battery cable ends with wire brush until shiny.
6. Coat terminals with grease or petroleum jelly
7. Reinstall battery.

Replacing battery

1. Lift Seat and rotate forward.
2. Remove the terminal guard.
3. Using two 1/2" wrenches disconnect BLACK battery cable then RED battery cable.
4. Unscrew the knob and remove battery hold down.
5. Carefully remove the battery from the mower.
6. Install new battery with terminals in the same position as the old battery.
7. Reinstall battery hold down.
8. First connect RED battery cable to positive (+) battery terminal with hex bolt and hex nut.

Always use protective glasses when handling the battery.

IMPORTANT INFORMATION

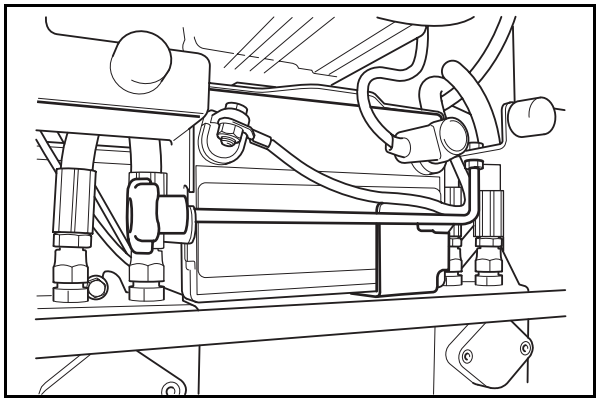
Do not attempt to open or remove caps or covers. Adding or checking level of electrolyte is not necessary.

Always use two wrenches for the terminal screws

WARNING!

Do not short battery terminals by allowing a wrench or any other object to contact both terminals at the same time. Before connecting battery, remove metal bracelets, wristwatch bands, rings, etc.

Positive terminal must be connected first to prevent sparks from accidental grounding.



8011-445

Battery installation

9. Connect BLACK grounding cable to negative (-) battery terminal with remaining hex bolt and hex nut.
10. Fit the terminal guard.
11. Lower seat.

Ignition System

The engine is equipped with an electronic ignition system. Only the spark plugs require maintenance.

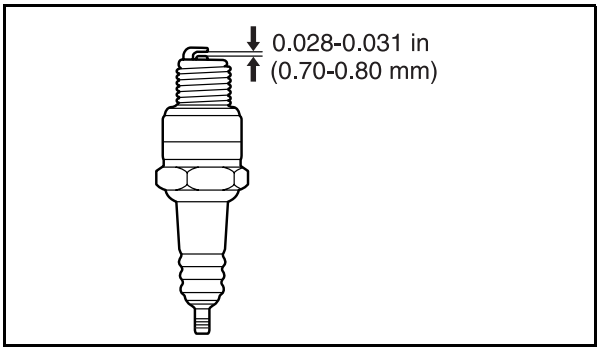
For recommended spark plugs, see Technical Data.

1. Remove the ignition cable boot and clean around the spark plug.
2. Remove the spark plug with a spark plug socket wrench.
3. Check the spark plug. Replace the spark plug if fouled, the electrodes are burned and if the insulation is cracked or damaged. Clean the spark plug with a steel brush if it is to be reused.
4. Measure the electrode gap with a gapping tool. The gap should be .030" (0.75 mm). Adjust as necessary by bending the side electrode.
5. Reinsert the spark plug, turning by hand to avoid damaging the threads.
6. After the spark plug is seated, tighten it using a spark plug wrench so that the washer is compressed. A used spark plug should be turned 1/8 of a turn from the seated position. A new spark plug should be turned 1/4 a turn from the seated position.
7. Replace the ignition cable.

IMPORTANT INFORMATION

Fitting the wrong spark plug type can damage the engine.

Inadequately tightened spark plugs can cause overheating and damage the engine. Tightening the spark plugs too hard can damage the threads in the cylinder head.



8011-05

Measure the electrode gap

Checking the Safety System

The machine is equipped with a safety system that prevents starting or driving under the following conditions.

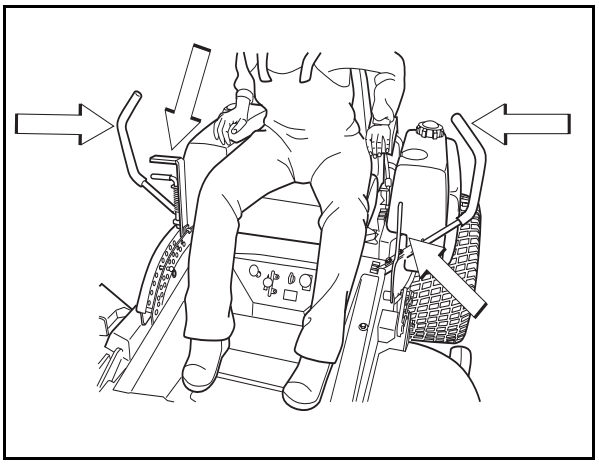
The engine can only be started when:

1. The mower deck is disengaged.
2. The steering controls are in the outer, locked neutral position.
3. The driver is sitting in the driver's seat.
4. The park brake is on.

Make daily inspections to ensure that the safety system works by attempting to start the engine when one of the conditions is not met. Change the conditions and try again.
If the machine starts when one of these conditions is not met, turn the machine off and repair the safety system before using the machine again.

Make sure the engine stops when the park brake is not engaged and the operator leaves the seated position.

Check that the engine stops if the mower blades are engaged and the driver temporarily stands up.



8050-527

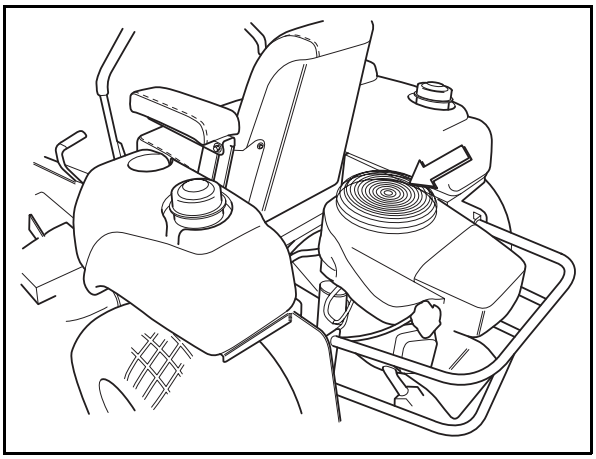
Conditions for starting

IMPORTANT INFORMATION

In order to drive the unit, the driver must sit in the seat and release the park brake before the steering controls can be moved into the neutral position, otherwise the engine will stop.

Checking the Engine's Cooling Air Intake

Check that the engine’s cooling air intake is free from leaves, grass, and dirt.
If the cooling air intake is clogged, engine cooling deteriorates, which can lead to engine damage.



8011-625

Check and clean the cooling air intake

Replacing the Air Filter (Kohler)

Heavy duty air filter

If the engine seems weak or runs unevenly, the air filter may be clogged. If the engine is run with a dirty air filter, the spark plugs can become fouled, disrupting operation.
It is important to replace the air filter regularly (see the heading Maintenance Schedule for the proper service interval).

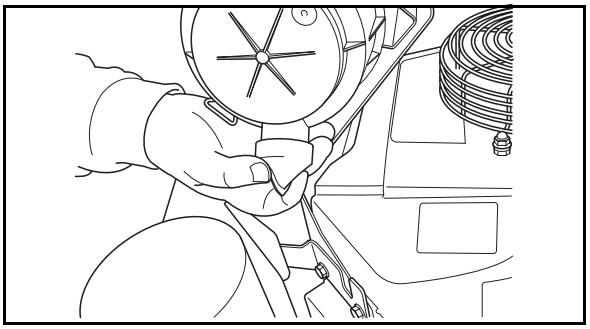
Dust cap

Check the dust cap every day by pressing the rubber valve with two fingers to let out the dirt.

Clean the dust cap by removing the end cover of the the air cleaner and clean the inside.

IMPORTANT INFORMATION

The end cover must be installed with the rubber valve pointing downwards, otherwise the rubber valve will not function.



8011-447

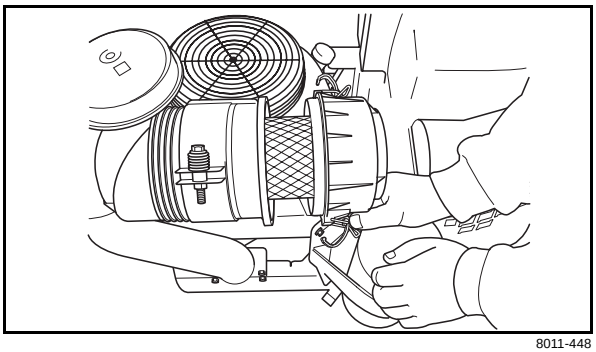
Pressing the rubber valve

To clean or replace the air filter:

1. Unhook the two retaining clips and remove the end cover.
2. Remove the main filter (outer filter) by pulling it out by hand.
3. Check the inner filter. If it appears dirty, it should be replaced. Remove the inner filter, if necessary, by pulling it out by hand.
4. Clean inside of the filter housing. Wipe dry only.
5. Install the inner filter with the open end first. Ensure that it enters its recess at the end of the housing by pushing it in to the stop.

WARNING!

The engine and the exhaust system, become very hot during operation. Risk for burns if touched. Allow engine and exhaust system to cool at least two (2) minutes.



8011-448

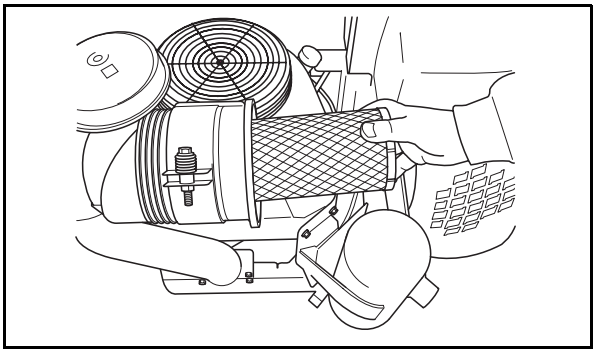
Removing the end cover

6. Install the main filter with the open end first. Ensure that it enters its recess at the end of the housing by pushing it in to the stop.

IMPORTANT INFORMATION

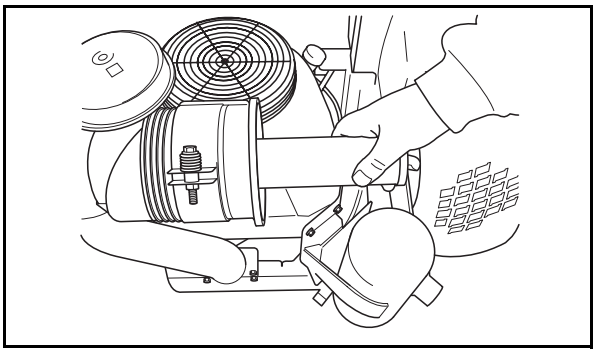
The end cover must be installed with the rubber valve pointing downwards, otherwise the rubber valve will not function.

7. Replace the end cap and turn the end cover so the rubber valve is pointing downwards. Secure the retaining clips.



8011-449

Installing the main filter

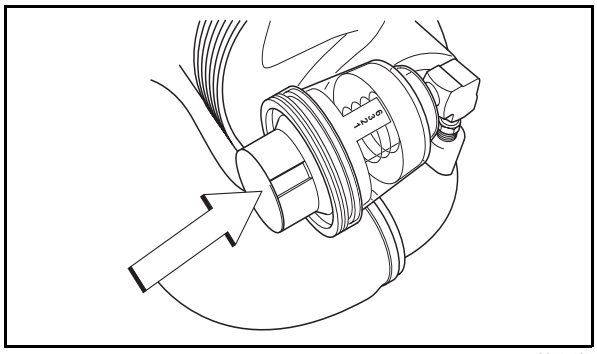


8011-450

Installing the inner filter

Air filter indicator (optional)

Change the main filter when the yellow piston is hanging at the top of the cylinder. To reset the indicator, push on the button (arrow) at the cylinder. A number of pushes may be required. If it indicates soon after a main filter replacement, change the inner filter.



8011-467

Air filter indicator

Replacing the Air Filter (Honda)

Standard air filter

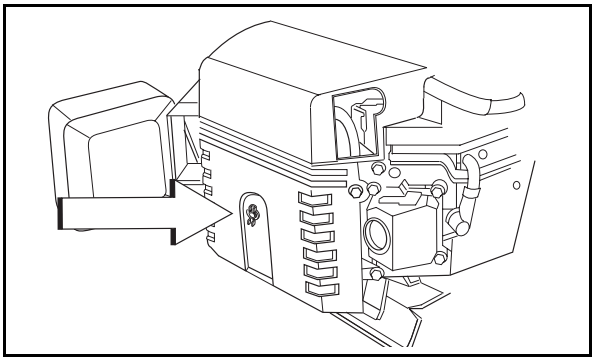
If the engine seems weak or runs unevenly, the air filter may be clogged. If run with a dirty air filter, the spark plugs can become fouled, disrupting operation.
It is important to replace the air filter regularly (see the heading Maintenance Schedule for the proper service interval).

To clean or replace the air filter:

WARNING!

The engine and the exhaust system, become very hot during operation. Risk for burns if touched. Allow engine and exhaust system to cool at least two (2) minutes.

1. Loosen the fastener and the two top inner screws. Remove the air cleaner cover.
2. Remove the paper filter.



8057-101

Remove the filter cover

3. Remove the foam rubber pre-filter and clean or replace as necessary. To clean, wash with warm water using a mild detergent. Squeeze out excess water and allow to air dry. After drying, dip the filter in clean engine oil and squeeze out excess.
4. Tap the paper filter against a fixed surface to remove dust. If the paper filter is still dirty, it must be replaced.

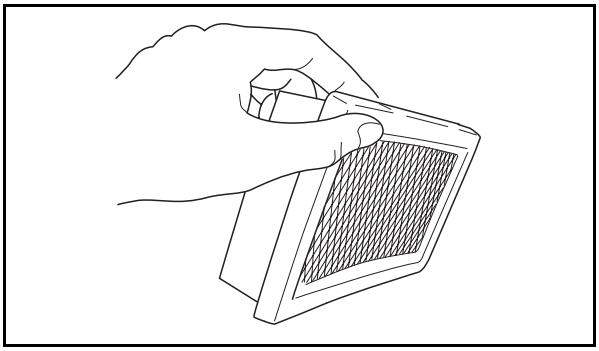
IMPORTANT INFORMATION

Do not used compressed air to clean the air filter.
Do not wash the paper filter.
Do not oil the paper filter.

5. Refit the air filter as follows:

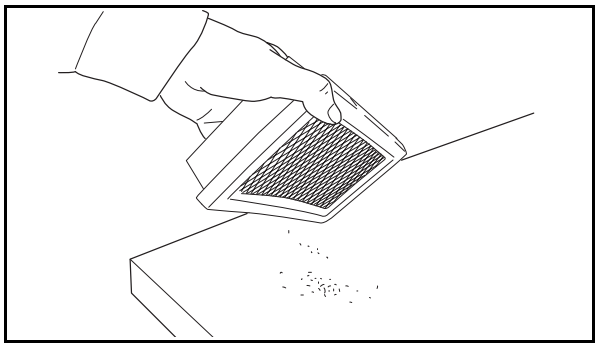
   Place the foam prefilter into the air cleaner compartment. Replace the gaskets.

   Mount the paper filter in the air filter housing and tighten the screws and wing nuts.



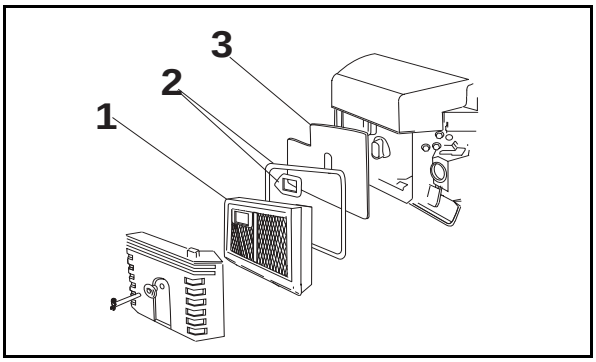
8057-728

Remove the paper filter



8057-182

Remove dust



8057-103

1. Paper filter
2. Gaskets
3. Pre-filter

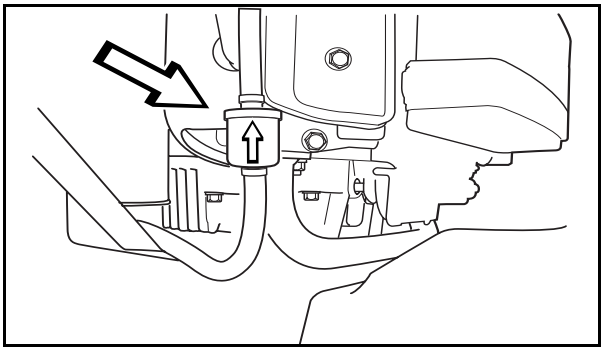
Reassemble air filter as shown

Replacing the Fuel Filter

Replace the line-mounted fuel filter every 100 hours (once per season) or more often if it becomes clogged.

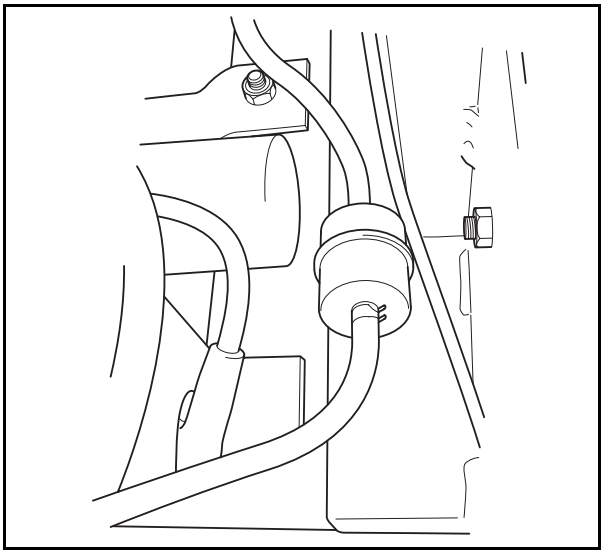
Replace the filter as follows:

1. Move the hose clamps away from the filter. Use flat-nosed pliers.
2. Pull the filter loose from the hose ends.
3. Push the new filter into the hose ends. Position the filter with the “FLOW” arrow pointing up toward the fuel pump. If necessary, a soap solution can be applied to the filter ends to ease mounting.
4. Move the hose clamps back toward the filter.



8009-146

Fuel filter



8011-468

Fuel filter Kohler

Checking the Fuel Pump’s Air Filter

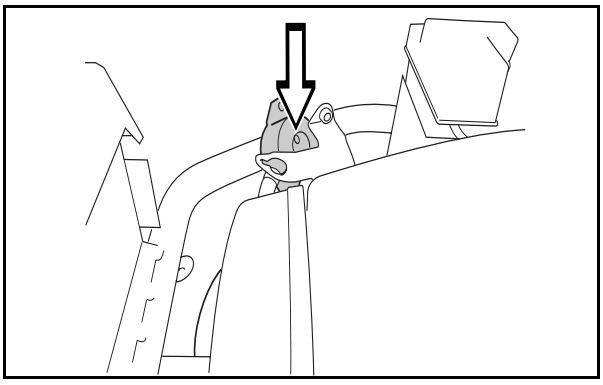
Regularly check that the fuel pump’s air filter is free from dirt.

On Kohler engine removal of the pump screws is not needed due to the filter facing outward.

Remove the screws and open the pump, no hoses need be removed.

The filter can be cleaned with a brush if necessary.

Replace the filter on the console.

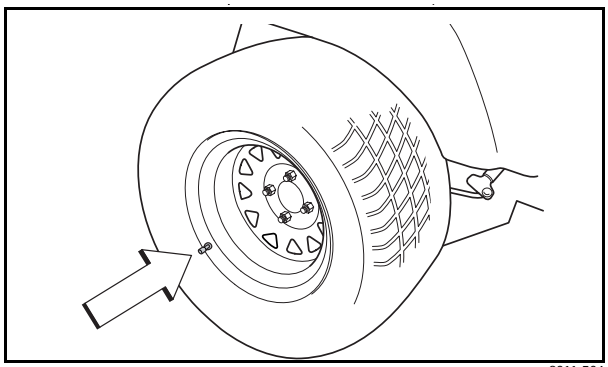


8009-147

The fuel pump’s air filter

Checking Tire Pressures

All four tires should have a pressure of 15 psi / 103 kPa /1 bar.



8011-564

Tire pressures

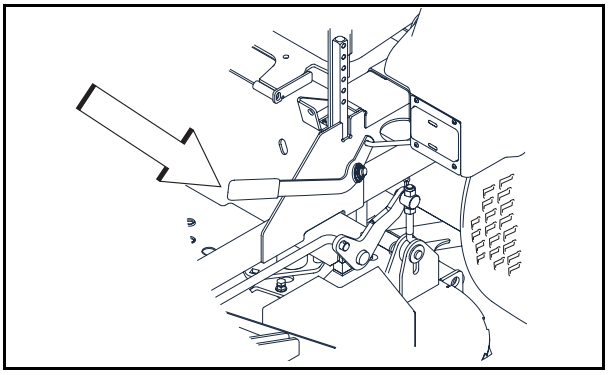
Checking the Park Brake

Visually check that no damage is found on the lever, links, or switch belonging to the park brake. Perform a test drive and check that there is sufficient braking action.

To adjust the park brake, contact the Dixon service workshop.

WARNING!

Faulty adjustment can cause an accident.



8050-138

Park brake in the released position

Checking the V-belts

Deck belt

Check every 100 hours of operation. Check for severe cracking and large nicks.

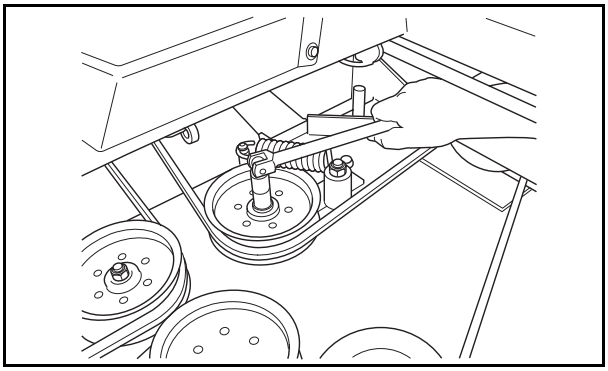
NOTE: The belt will show some small cracks in normal operation.

To replace belt, lower the deck to its lowest position. Remove the foot plate and belt shields.

Use a ratchet with a 9/16” socket on the spring idler bolt to relieve the tension on the belt. Slide the belt off the pulley and remove the belt.

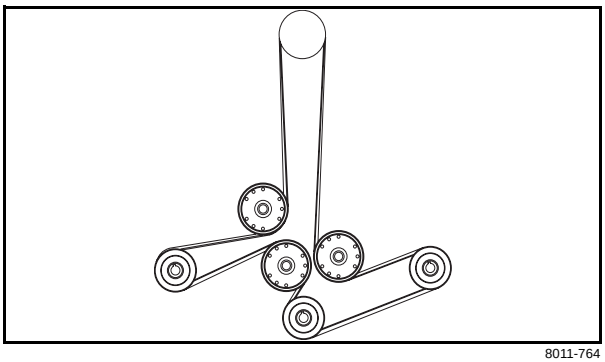
Reverse the procedure for installation. See the decal on the top of deck for belt routing information.

After installation is complete check the belt for twists.



8011-622

Slackening the belt tensioner



8011-764

Belt routing, deck belt

Pump belt

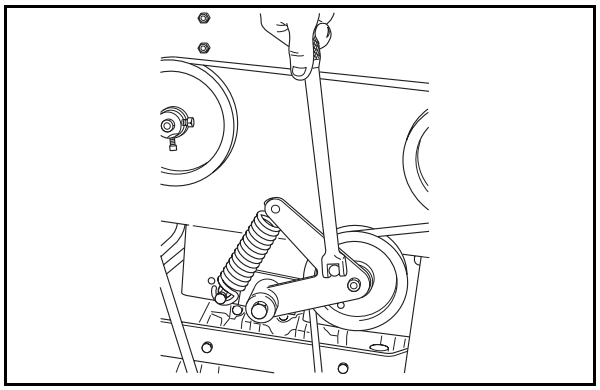
Check belt every 100 hours for excessive wear.

To replace belt. Relieve tension on the deck belt and remove deck belt from clutch. See “Deck belt” on page 44. Loosen bolt on the clutch tie down and rotate out of the way.

Using a 1/2” drive ratchet inserted into the square hole in the pump idler arm, relieve the tension on the pump belt and remove belt.

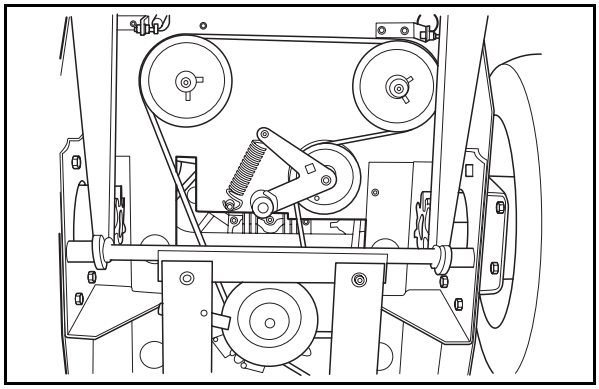
To reinstall belt. Swing pump idler pulley out toward engine to route belt around it. Then route belt around the pulley for the left pump first (right hand pulley in the illustration).

Reinstall idler spring and use the ratchet to rotate idler so the belt may be installed all the way around the last pulley.



8011-623

Slackening the belt tension



8011-624

Belt routing, hydraulic pumps

Checking the Blades

In order to attain the best mowing performance, it is important that blades are well sharpened and not damaged.

WARNING!

Blades are sharp. Protect your hands with gloves and/or wrap blades with a heavy cloth when handling.

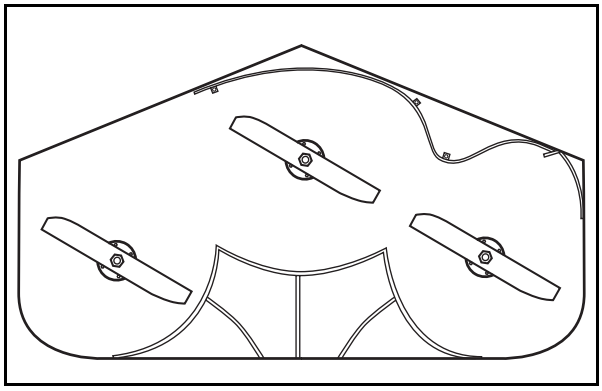
Bent or cracked blades or blades with large nicks should be replaced.

Check the blade mounts.

IMPORTANT INFORMATION

The sharpening of blades should be carried out by an authorized service workshop.

After hitting obstacles that result in a breakdown, damaged blades should be replaced. The service workshop should decide whether the blade can be repaired/ground or must be discarded.



8011-604

Check the blades

MAINTENANCE

Blade replacement:

WARNING!

Blades are sharp. Protect your hands with gloves and/or wrap blades with a heavy cloth when handling.

- Remove blade bolt by turning counterclockwise.

IMPORTANT INFORMATION

To ensure proper assembly, center hole in blade must align with star on cutter housing.

- Install new or re-sharpened blade with stamped “GRASS SIDE” facing towards ground/grass (down) or “THIS SIDE UP” facing deck and cutter housing.
- Install and tighten blade bolt securely.

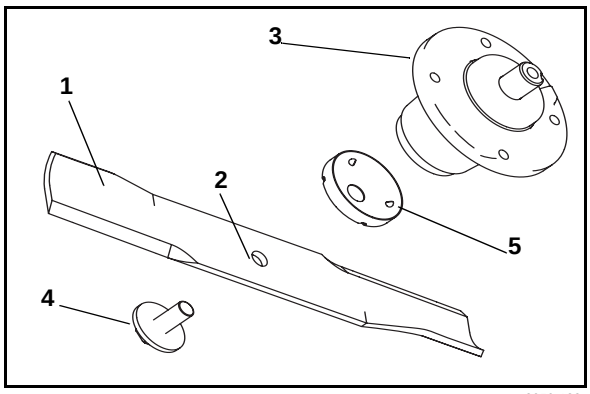
  Torque blade bolt to 90 ft/lbs (122 Nm).

IMPORTANT INFORMATION

Special blade bolt is heat treated.

Replace with a Dixon bolt if required.

Do not use lower grade hardware than specified.



8050-132

1. Blade
2. Center hole
3. Cutter housing
4. Blade bolt
5. Trash guard

Blade attachment

MAINTENANCE

Adjusting the Mower Deck

WARNING!

Before performing any service or adjustment checklist:
1. Engage the park brake.
2. Place the blade-switch in the disengaged position.
3. Turn ignition switch to “OFF” position and remove the key.
4. Make sure the blades and all moving parts have completely stopped.
5. Disconnect the spark plug wire from all spark plugs and place the wire where it cannot come in contact with the plug.

Leveling

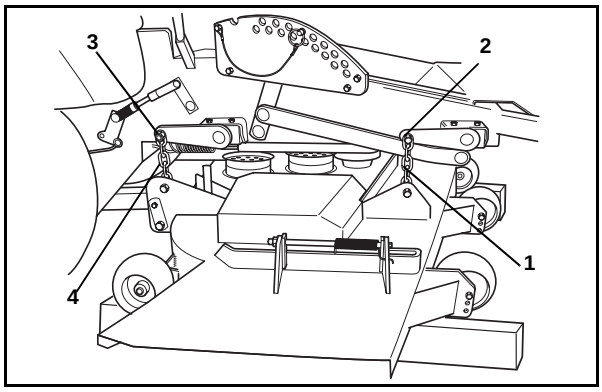
1. Position the mower on a level, preferably concrete, surface.
2. Check the pressure in all four tires. See “Technical Data” section.
3. Rotate blades to align front to back.
4. Set cutting height to 4".
5. Measure front blade tip, should be 4" from ground, if not turn locknut on top of front eyebolt till measurement is achieved. Check blade tip at front on opposite front blade. Adjust locknut on front eyebolt as necessary.
6. Check rear blade measurement, should be 4 1/4" from ground, if not turn locknut on top of rear eyebolt to achieve measurement. Repeat procedure on opposite side.
7. If deck leveling cannot be achieved call Technical Support at toll free number 877-288-6673.

Adjusting Cutting Height

1. Raise and secure the deck height lever to the transport position (6").
2. Position blade tip so it is straight forward.
3. Measure from the cutting edge of the blades to a flat level surface. The distance should be 6" (150 mm).
4. Drop and secure the lever at (for example) the 2" cutting height. Measure as above. The distance should be 2" (50 mm).

WARNING!

Blades are sharp. Protect your hands with gloves and/or wrap blades with a heavy cloth when handling.



8011-601-1

1. Front eyebolt
2. Front locknut
3. Rear locknut
4. Rear eyebolt

Leveling the mower deck

To adjust anti-scalp rollers

Anti-scalp rollers are properly adjusted when they are just slightly off of the ground when the deck is at the desired cutting height in the operating position. Anti-scalp rollers then keep the deck in the proper position to help prevent scalping in most terrain conditions.

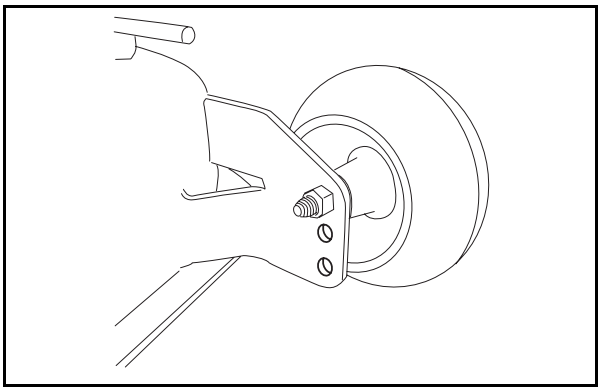
IMPORTANT INFORMATION

Adjust Anti-scalp rollers with the mower on a flat level surface.

The anti-scalp rollers can be set in three positions.

- Upper position 1.5" to 3" (38 to 76 mm) grass.
- Middle position 3" to 4.5" (76 to 114 mm) grass.
- Lower position 4.5" to 6" (114 to 152 mm) grass.

The rollers should be approximately 1/4" (6.5 mm) from ground.



CZ-9

Anti-scalp roller

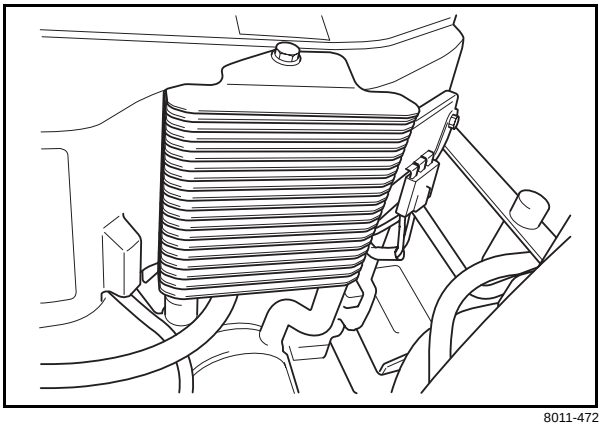
IMPORTANT INFORMATION

The anti-scalp rollers must not be used for gauge wheels or the roller and deck may be damaged.

Engine oil cooler

Kohler engine only.

1. Clean the outside of fins with a brush.
2. Remove the two screws holding the cooler unit to the blower housing.
3. Tilt the cooler downward.
4. Clean the inside of the cooler with a brush or with compressed air.
5. Reinstall the oil cooler to the blower housing.



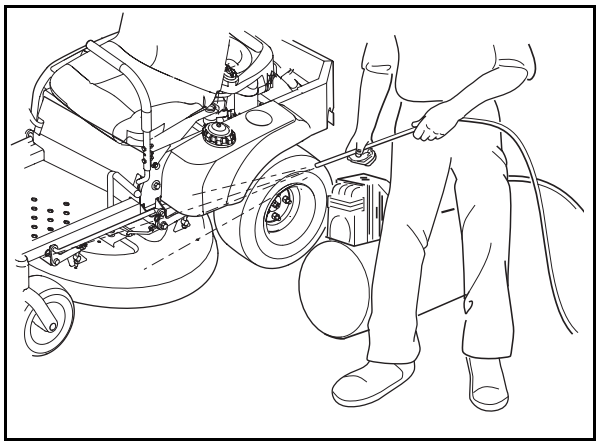
8011-472

Engine oil cooler

Cleaning and Washing

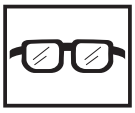
Regular cleaning and washing, especially under the mower deck, will increase the machine's life span. Make it a habit to clean the machine directly after use (after it is cooled), before the dirt sticks.

Do not spray water on the top of the mower deck. Use compressed air to clean the top side of mower deck. Regularly clean deck and underside of deck, avoiding spraying engine and electrical components with water.



8050-092

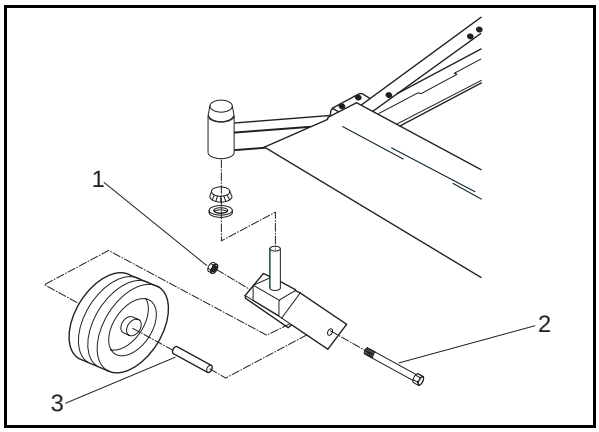
Cleaning



Use protective glasses when cleaning and washing.

Caster Wheels

Check every 200 hours. Lift front of unit off of ground so caster wheels can rotate freely. Tighten caster bolt (34) then back off a half turn. Check that wheel rotates freely. If wheel does not rotate freely back the caster bolt off in quarter turn increments until wheel rotates freely.



8011-619

Caster wheels

IMPORTANT INFORMATION

DO NOT add any type of tire liner or foam fill material to the tires. Excessive loads created by foam filled tires will cause premature failures.

Only use O.E.M. specified tires.

Foam filled tires or solid tires will void the warranty.

Removal and installation of caster wheel

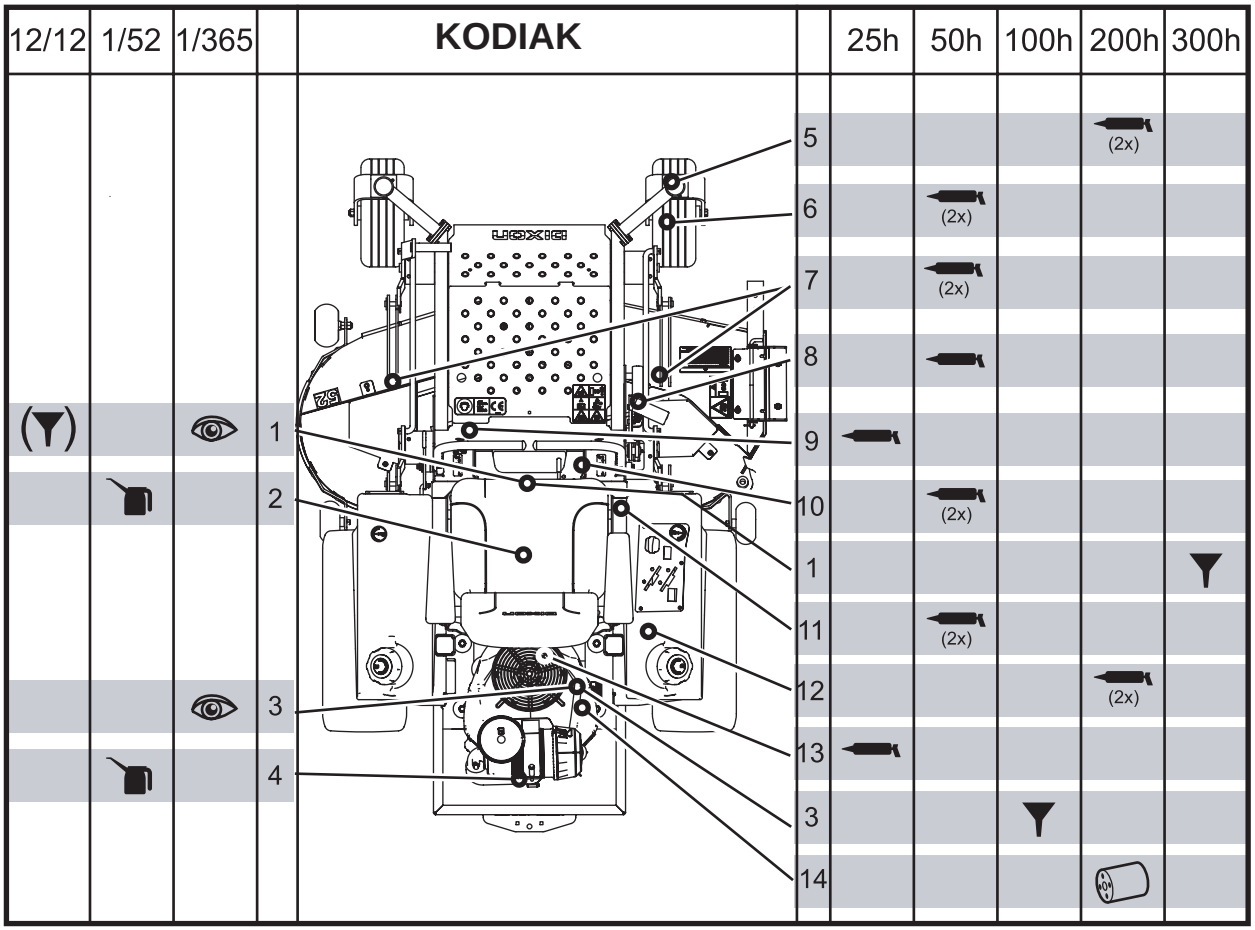
1. Remove nut (1) and caster bolt (2).
2. Pull wheel out of fork and remove sleeve (3).
3. Place sleeve in new wheel and rim assembly. Install in reverse order. Tighten caster bolt according to instructions above.

Hardware

Check daily. Inspect the entire machine for loose or missing hardware.

Lubrication

Lubrication Schedule



12/12 Every year
1/52 Every week
1/365 Every day

Lubricate with grease gun
Oil change
Filter change

Lubricate with oil can
Level check

General

Remove the ignition key to prevent unintentional movements during lubrication.

When lubricating with an oil can, it must be filled with engine oil.

When lubricating with grease, unless otherwise stated, use a high grade molybdenum disulfide grease.

For daily use, the machine should be lubricated twice weekly.

Wipe away excess grease after lubrication.

It is important to avoid getting lubricant on the belts or the drive surfaces on the belt pulleys. Should this happen, attempt to clean them with spirits. If the belt continues to slip after cleaning, it must be replaced. Gasoline or other petroleum products must not be used to clean belts.

LUBRICATION

Lubricating the Cables

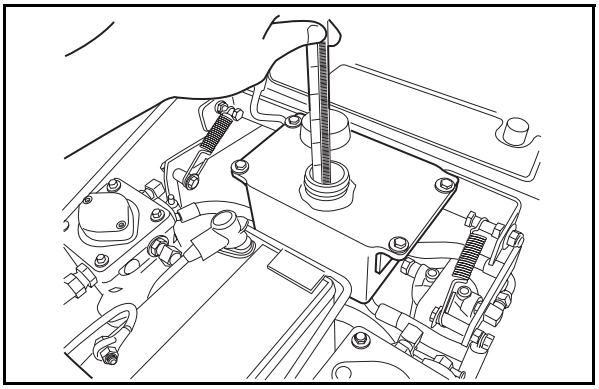
If possible, grease both ends of the cables and move the controls to end stop positions when lubricating. Refit the rubber covers on the cables after lubrication. Cables with sheaths will bind if they are not lubricated regularly. If a cable binds, it can disrupt operation.

If a cable binds, remove the cable and hang it vertically. Lubricate it with light engine oil until the oil begins to escape from the bottom.

Tip: Fill a small plastic bag with oil and tape it so that it seals against the sheath and allow the cable to hang vertically from the bag overnight. If you do not succeed in lubricating the cable, it must be replaced.

Shaft Bushings and Linkage

Lubricate the bearings of the shafts and linkage for the brake system and steering with oil spray or oil can.



8011-565

Checking the hydraulic oil

Lubricating in Accordance with the Lubrication Schedule

1. Hydraulic System, Oil Level

The hydraulic oil and filter should be replaced every 300 hours, and at least once a year. Contact an authorized service workshop.

Check the oil level in the hydraulic tank daily. The level shall be about 3/4"-1" (19 - 25 mm) below the top of the tank.

Check connections, hoses, and tubes for damage or leaks. Replace or repair if doubtful.

Changing Oil and Filters

Oil and filter changes should be carried out by an authorized service workshop due to the risk of impurities enter the system.

WARNING!

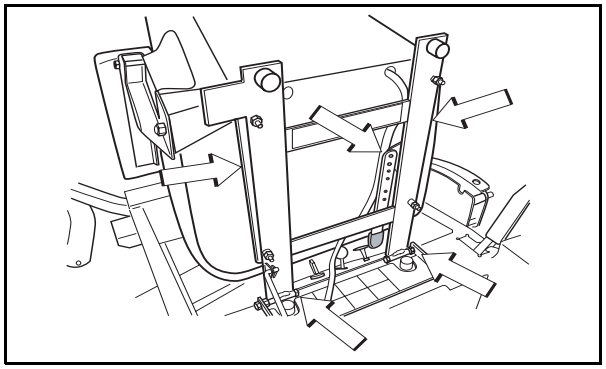
If a leak is suspected, use a piece of cardboard or wood, NOT your hands, to check for leaks. Escaping hydraulic oil under pressure can have sufficient force to penetrate the skin, causing serious injury. If injured by escaping fluid, see a doctor at once. Serious infection or reaction can develop if proper medical treatment is not administered immediately.

2. Driver's Seat

Tip the seat.

Lubricate the hinges at the front of the seat using an oil can.

Lubricate the seat slide adjustment and lever mechanism with the oil can.



8011-571

Lubricating the lengthways adjuster under the seat

3. Engine Oil Kohler Engine

Changing the Engine Oil

Change oil after every 100 hours of operation (more frequently under severe conditions). Refill with service class SG, SH, SJ or higher oil as specified in the *Viscosity Grades* table on page 54.

Change the oil while the engine is still warm. The oil will flow more freely and carry away more impurities. Make sure the engine is level when filling, checking or changing the oil.

WARNING!

The engine and the exhaust system, become very hot during operation. Risk for burns if touched. Allow engine and exhaust system to cool at least two (2) minutes.

Change the oil as follows:

1. To keep dirt, debris, etc., out of the engine, clean the area around the oil fill cap/dipstick before removing it.
2. Remove the oil drain plug and the oil fill cap/dipstick. Be sure to allow ample time for complete drainage.
3. Reinstall the drain plug. Make sure it is tightened to 10 ft.lb. (13.6 Nm) torque.
4. Fill the crankcase, with new oil of the proper type, to the “FULL” mark on the dipstick. Refer to *Oil Type,* page 54. Always check the level with the dipstick before adding more oil.
5. Reinstall the oil fill cap/dipstick and tighten securely.

IMPORTANT INFORMATION

To prevent extensive engine wear or damage, always maintain the proper oil level in the crankcase. Never operate the engine with the oil level below the “ADD” mark or over the “FULL” mark on the dipstick.

6. Start the engine. Run it for a few seconds and recheck the oil level.

IMPORTANT INFORMATION

Used engine oil is a health hazard and must not be disposed of on the ground or in nature; it should always be disposed of at a workshop or appropriate disposal location.

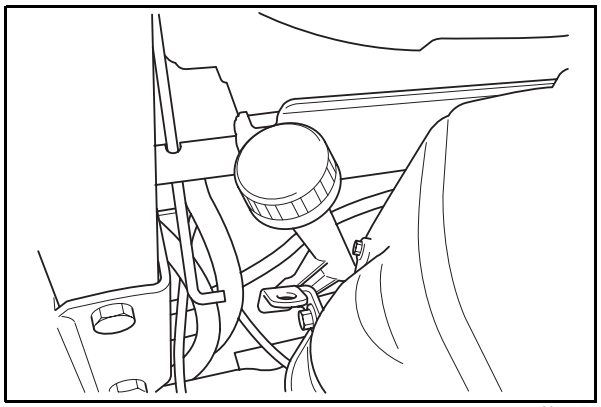
Avoid skin contact; wash with soap and water in case of spills.

Checking the Oil Level

The importance of checking and maintaining the proper oil level in the crankcase cannot be overemphasized.

Check oil before each use as follows:

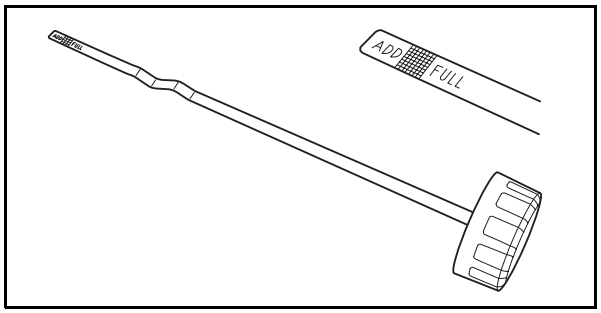
1. Make sure the engine is stopped, level, and is cool so the oil has had time to drain into the oil pan.
2. To keep dirt, debris, etc., out of the engine, clean the area around the dipstick before removing it.
3. Unthread and remove the dipstick; wipe oil off. Reinsert the dipstick into the tube and rest the cap on the tube. Do not thread the cap onto the tube.
4. Pull the dipstick out and check the oil level. The oil level should be up to, but not over, the “FULL” mark on the dipstick.



8011-471

Oil dipstick

5. If the level is low, add oil of the proper type, up to the “FULL” mark on the dipstick. Refer to *Oil Type*, page 54. Always check the level with the dipstick before adding more oil.



8009-464

Level marking

IMPORTANT INFORMATION

To prevent extensive engine wear or damage, always maintain the proper oil level in the crankcase. Never operate the engine with the oil level below the “ADD” mark or over the “FULL” mark on the dipstick.

LUBRICATION

Oil Recommendations

Using the proper type and weight of oil in the crankcase is extremely important. So is checking oil daily and changing oil regularly. Failure to use the correct oil, or using dirty oil, causes premature engine wear and failure.

Oil Type

Use high quality detergent oil of API (American Petroleum Institute) service class SG, SH, SJ or higher. Select the viscosity based on the air temperature at the time of operation.

IMPORTANT INFORMATION

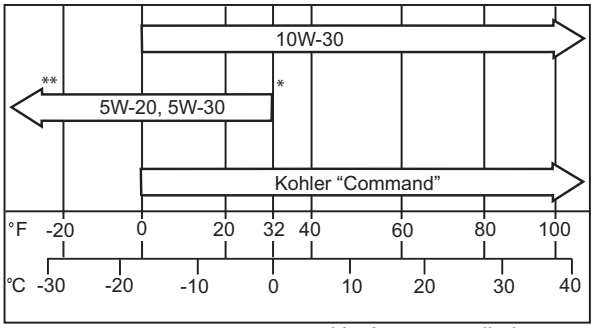
Using other than service class SG, SH, SJ or higher oil or extending oil change intervals longer than recommended can cause engine damage.

IMPORTANT INFORMATION

Synthetic oils meeting the listed classifications may be used with oil changes performed at the recommended intervals. However to allow piston rings to properly seat, a new or rebuilt engine should be operated for at least 50 hours using standard petroleum based oil before switching to synthetic oil.

A logo or symbol on oil containers identifies the API service class and SAE viscosity grade.

Recommended SAE viscosity grades



Temperature range expected before next oil change

* Use of synthetic oil having 5W-20 or 5W-30 rating is acceptable, up to 40^{o} F($+4^{o}$ C).

** Synthetic oils will provide better starting in extreme cold below -10^{o} F (-23^{o} C).

8011-766

Viscosity grades table

3. Engine Oil

Changing the Engine Oil

The engine oil must be changed for the first time after 8 hours of operation. Thereafter, it should be changed every 100 hours.

WARNING!

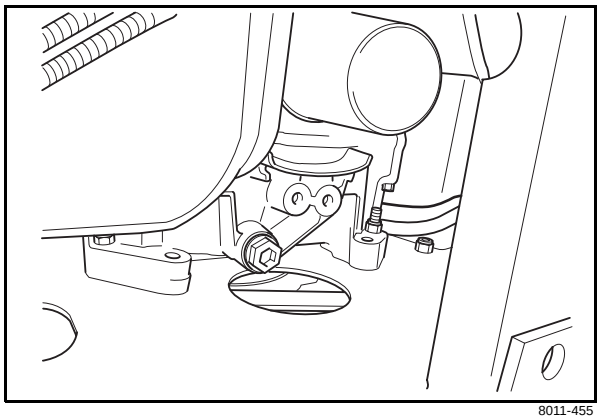
The engine and the exhaust system, become very hot during operation. Risk for burns if touched. Allow engine and exhaust system to cool at least two (2) minutes.

IMPORTANT INFORMATION

Used engine oil is a health hazard and must not be disposed of on the ground or in nature; it should always be disposed of at a workshop or appropriate disposal location.

Avoid skin contact; wash with soap and water in case of spills.

1. Place the machine on a flat surface.
2. Place a container under the engine oil drain plug.
3. Remove the dipstick and open the oil drain plug.
4. Allow the oil to run out into the container.
5. Then close the oil drain plug.
6. Replace the oil filter if necessary.
7. Fill with new engine oil in accordance with Checking the Oil Level.
8. Start the engine. Run it for a few seconds. Stop and recheck the oil level.



8011-455

Oil drain plug

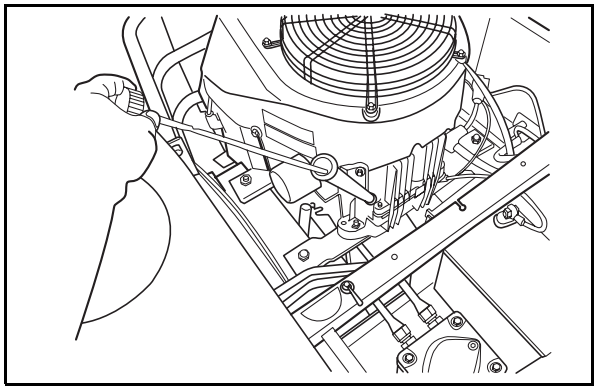
Checking the Oil Level

Check the oil level in the engine when the machine is standing level and the engine is stopped.

Remove the dipstick, wipe it clean, and then replace it.

The dipstick should **not** be screwed into place.

Take the dipstick out again and read the oil level.



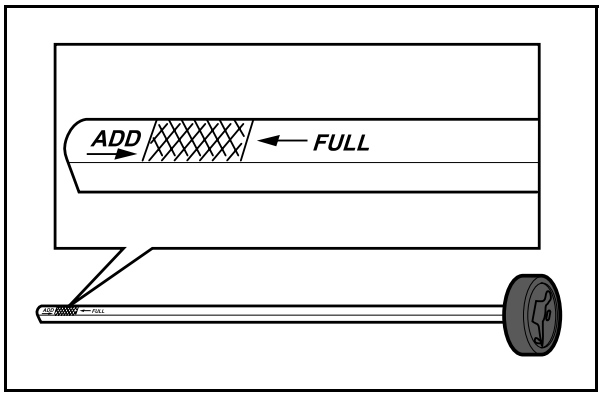
8011-569

Remove the dipstick

The oil level should lie between the markings on the dipstick. If the level is approaching the “ADD” mark, fill the oil to the “FULL” mark on the dipstick.

Never fill above the “FULL” mark.

The oil is filled through the hole for the dipstick.



8009-159

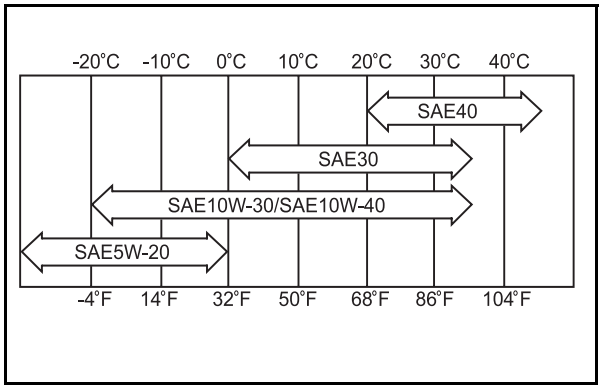
The dipstick markings

Use engine oil SAE 30 or SAE 10W-30 or, alternately, 10W/40, class SC–SJ (over +32 °F/0 °C).

Over +68 °F/+20 °C SAE 40 can be used.

Use engine oil SAE 5W-20, class SC–SJ (under +32 °F/0 °C).

The engine holds 1.6 qt/1.5 liters of oil excluding the filter (including filter 1.8 qt/1.7 liters).



8009-140

Engine oils

4. Throttle and Choke Cables, Lever Bearings

Lubricate the cable ends by the carburetor with a oil can. Move the controls to the end points and lubricate again.

The throttle cable is also lubricated by the control when the control console is removed.

On Kohler engine the cables are placed under the air filter housing.

5. Front Wheel Mount

Lubricate with a grease gun, one zerk for each wheel mount, until the grease is forced out.

Use only good quality molybdenum disulfide grease.

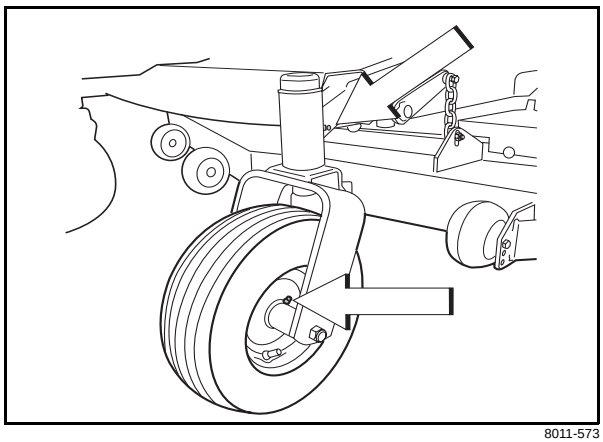
Grease from well-known brand names (petrochemical companies, etc.) usually maintains a good quality.

6. Front Wheel Bearings

Lubricate with a grease gun, one zerk for each set of wheel bearings, until the grease is forced out.

Use only good quality molybdenum disulfide grease.

Grease from well-known brand names (petrochemical companies, etc.) usually maintains a good quality.

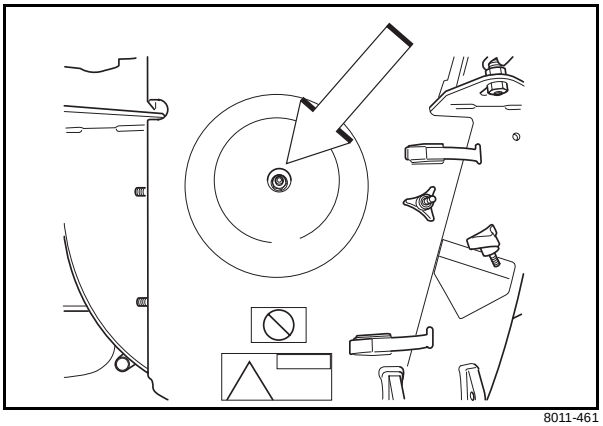


8011-573

Lubricating the front wheels

7. Deck belt pulleys

Lubricate with a grease gun two strokes.



8011-461

Deck belt pulleys

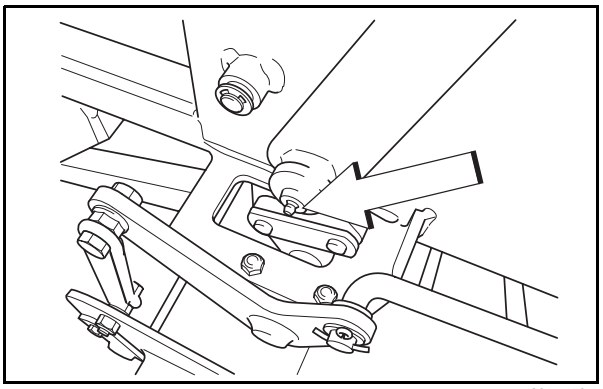
8. Mower Deck Height Adjuster

Lubricate using a grease gun, one zerk, until the grease squeezes out.

Lubricate the lever latch run in the lever.

Use only good quality molybdenum disulfide grease.

Grease from well-known brand names (petrochemical companies, etc.) usually maintains a good quality.



8011-456-1

Lubricating the cutting height adjuster

9. Belt Adjuster, Mower Deck

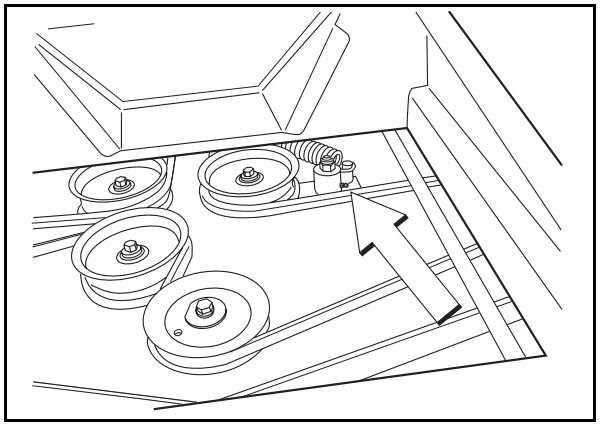
Remove the foot plate (two screws) and lubricate with a grease gun, one zerk, until grease is forced out.

Use only good quality molybdenum disulfide grease.

Grease from well-known brand names (petrochemical companies, etc.) usually maintains a good quality.

IMPORTANT INFORMATION

Use minimal lubrication and remove excess lubricant so that it does not come into contact with belts or belt pulley drive surfaces.



8011-576

The belt adjuster grease zerk

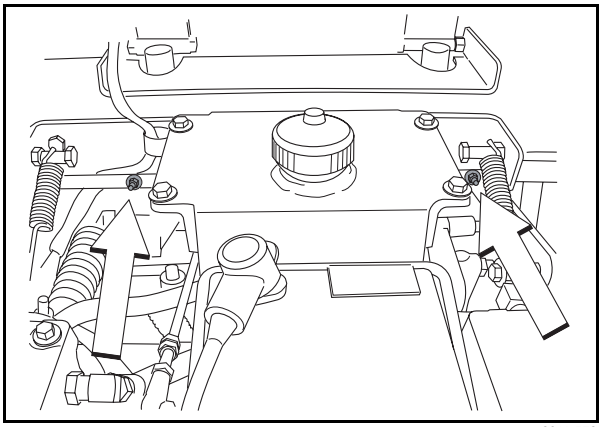
10. Steering Control Shafts

Tip the driver's seat.

Lubricate with a grease gun, one zerk for each steering control shaft, until the grease is forced out.

Use only good quality molybdenum disulfide grease.

Grease from well-known brand names (petrochemical companies, etc.) usually maintains a good quality.



8011-578

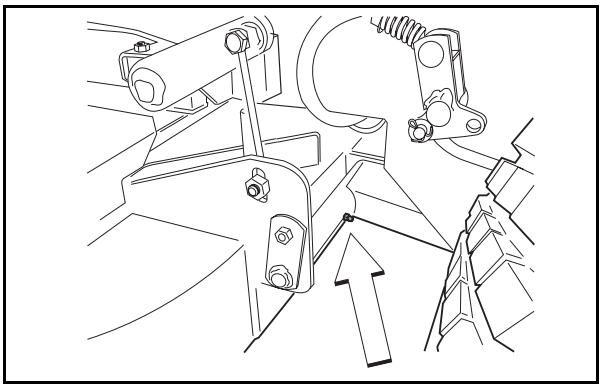
Lubricating the steering control shafts

11. Mower Deck Struts

Lubricate with a grease gun, one zerk for each strut, until the grease is forced out.

Use only good quality molybdenum disulfide grease.

Grease from well-known brand names (petrochemical companies, etc.) usually maintains a good quality.



8011-577-1

Lubricating struts

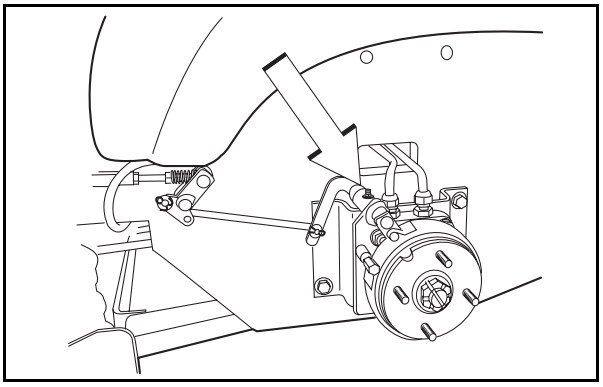
12. Brake Arms

Remove one rear wheel at a time (four screws).

Lubricate with a grease gun, one zerk for each brake arm, until the grease is forced out.

Use only good quality molybdenum disulfide grease.

Grease from well-known brand names (petrochemical companies, etc.) usually maintains a good quality.



8011-579

Lubricating brake arms

IMPORTANT INFORMATION

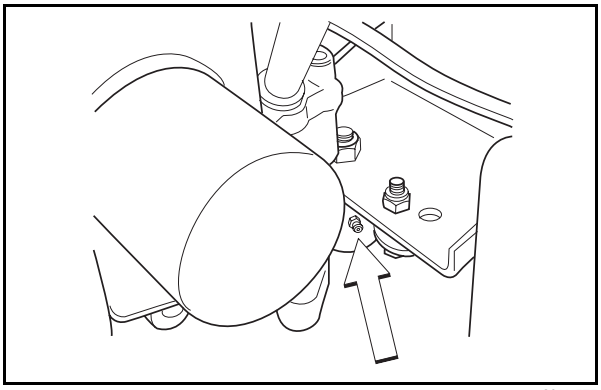
Use minimal lubrication and remove excess lubricant so that is does not come into contact with the brake band.

13. Belt Adjuster, Hydraulic Pumps

Lubricate using a grease gun, one zerk, until the grease squeezes out.

Use only good quality molybdenum disulfide grease.

Grease from well-known brand names (petrochemical companies, etc.) usually maintains a good quality.



8011-575

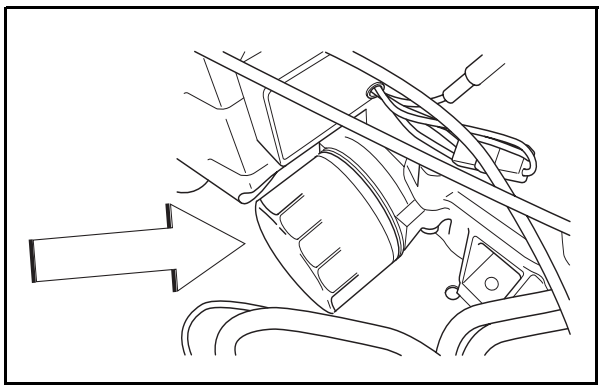
Lubricating the belt adjuster

IMPORTANT INFORMATION

Use minimal lubrication and remove excess lubricant so that is does not come into contact with belts or belt pulley drive surfaces.

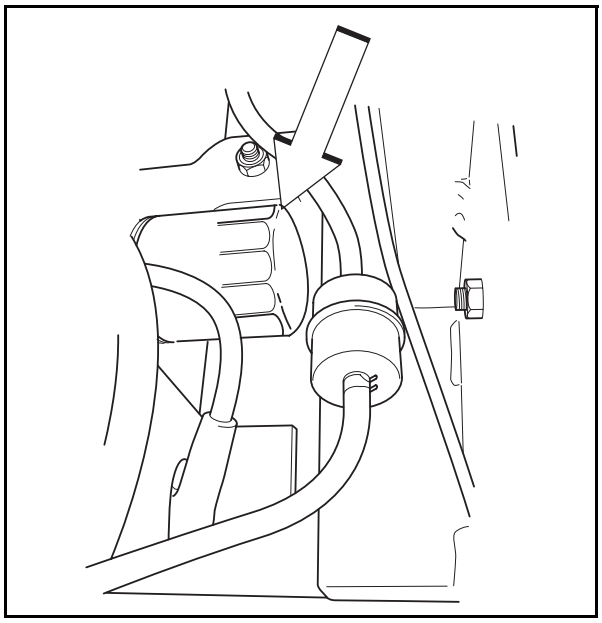
14. Changing the Oil Filter

1. Drain the engine oil in accordance with the work description under the heading Engine Oil/Change Engine Oil.
2. Remove the oil filter. If necessary, use a filter remover.
3. Wipe new, clean engine oil onto the seal for the new filter.
4. Mount the filter by hand with + 3/4 turn.
5. Run the engine warm, then check that there are no leaks around the oil filter seal.
6. Check the oil level in the engine, fill to proper level if necessary. The oil filter holds 0.2 qt (0.2 liters) of oil.



8057-734

Changing the oil filter Honda



8057-745

Changing the oil filter Kohler

TROUBLE SHOOTING GUIDE

Trouble Shooting Guide

Problem	Cause
The engine will not start.	• The blade switch is engaged. • The steering controls are not locked in the neutral position. • The driver is not sitting in the driver's seat. • The park brake is not activated. • The battery is dead. • Contamination in the carburetor or fuel line. • The fuel supply is closed or the tap for the fuel tanks is in the wrong position. • Clogged fuel filter or fuel line.
The starter does not turn the engine over.	• Dead battery. • Poor contacts on the battery terminal cable connections. • Fuse blown. • Ignition system faulty. • Fault in the starter safety circuit. See Checking the Safety System in the Maintenance section.
The engine runs rough.	• Faulty carburetor. • The choke control is pulled out with a warm engine. • Defective valves. • Defective piston, cylinder, piston ring, or cylinder head seal. • The cylinder head bolts are loose. • Clogged fuel filter or jet. • Clogged ventilation valve on the fuel cap. • Fuel tank nearly empty. • Defective spark plugs. • The spark plugs are loose. • Defective ignition cable. • Defective spark plug electrode. • Defective spark plug connection. • Rich fuel mixture or fuel-air mixture. • Wrong fuel type. • Water in the fuel. • Clogged air filter.

TROUBLE SHOOTING GUIDE

Problem	Cause
The engine seems weak.	• Clogged air filter. • Defective spark plugs. • Carburetor incorrectly adjusted.
The engine overheats.	• Clogged air intake or cooling fins. • Engine overloaded. • Poor ventilation around engine. • Defective engine speed regulator. • Soot in the combustion chamber. • Too little or no oil in the engine. • Defective spark plugs. • Pre-ignition incorrect.
Battery not charging.	• Poor contact with battery terminal cable connectors.
The machine moves slowly, unevenly, or not at all.	• Park brake on. • Bypass valve on pump open. • Drive belt for the pump slack or has come off. • Defective hydraulic system. • Air in the hydraulic system.
Mower deck not engaging.	• Drive belt for the mower deck has come loose. • Contact for the electromagnetic coupling has loosened. • The blade switch is faulty or has come loose from the cable contact. • The fuse has blown.
Uneven mowing results.	• Different air pressure in the tires on the left and light sides. • Bent blades. • The chains for suspending the mower deck are uneven. • The chain fixture has come loose. • The blades are blunt. • Driving speed too high. • The grass is too long. • Grass collected under the mower deck.
The machine vibrates.	• The blades are loose. • The blades are incorrectly balanced. • The engine is loose.

STORAGE

Storage

Winter Storage

At the end of the mowing season (or if it will not be in use for longer than 30 days), the machine should be readied for storage. Fuel allowed to stand for long periods of time (30 days or more) can leave sticky residues that can plug the carburetor and disrupt engine function.

Fuel stabilizers are an acceptable option as regards sticky residues during storage.

Add stabilizer to the fuel in the tank or in the storage container. Always use the mixing ratios specified by the manufacturer of the stabilizer. Run the engine for at least 10 minutes after adding the stabilizer so it reaches the carburetor. Do not empty the fuel tank and the carburetor if you have added stabilizer.

WARNING!

Never store an engine with fuel in the tank indoors or in poorly ventilated spaces where fuel vapor can come in contact with open flames, sparks or a pilot light such as in a boiler, hot water tank, clothes drier, etc. Handle the fuel with care. It is very flammable and careless use can cause serious personal injury and property damage. Drain the fuel into an approved container outdoors and far away from open flame. Never use gasoline for cleaning. Use a degreaser and warm water instead.

To ready the machine for storage, follow these steps:

1. Thoroughly clean the machine, especially under the mower deck. Touch up damage to the paint and spray a thin layer of oil on the underside of the mower deck to avoid corrosion.
2. Inspect the machine for worn or damaged parts and tighten any nuts or screws that may have become loose.
3. Change the engine oil; dispose of used oil properly.
4. Empty the fuel tanks or add a fuel stabilizer. Start the engine and allow it to run until the carburetor is drained of fuel or the stabilizer has reached the carburetor.
5. Remove the spark plugs and pour about a tablespoon of engine oil into each cylinder. Turn over the engine so that the oil is evenly distributed and then refit the spark plugs.
6. Lubricate all grease zerks, joints, and axles.
7. Remove the battery. Clean, charge, and store the battery in a cool place, but protect it from direct cold.
8. Store the machine in a clean, dry place and cover it for extra protection.

Service

When ordering spare parts, please specify the purchase year, model, type, and serial number.

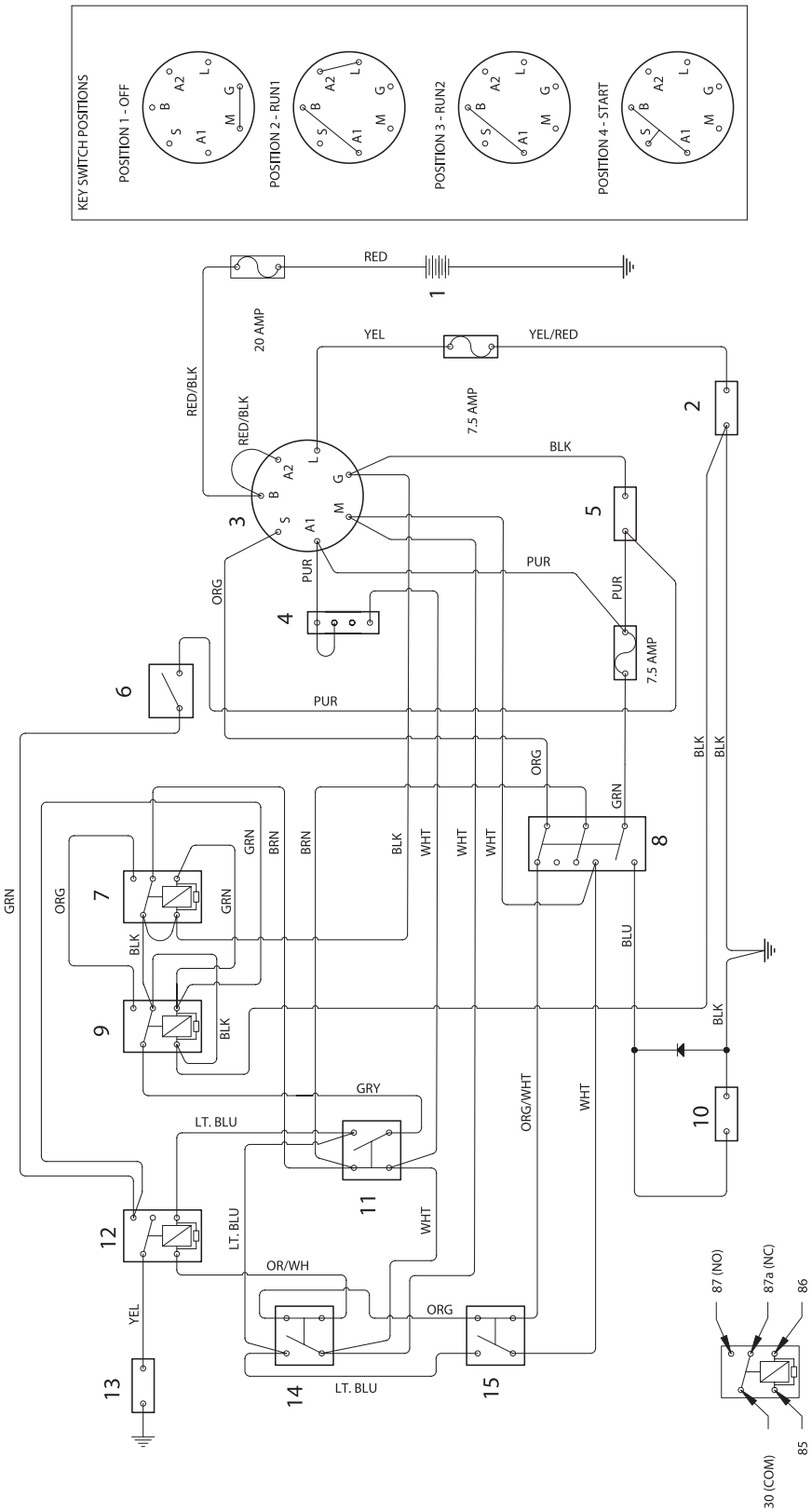
Always use genuine Dixon spare parts.

An annual checkup at an authorized service workshop is a good way to ensure that your machine performs its best the following season.

WIRING DIAGRAMS

Wiring diagram

6. Seat unoccupied
11. Brake switch OFF pos.
8. Blade switch in OFF position
14-15. Motion control levers OUT



1. Battery
2. Accessory outlet
3. Key switch
4. To engine pigtail
5. Hour meter
6. Seat switch
7. Run relay
8. PTO switch
9. Brake relay
10. Electric clutch
11. Brake switch
12. Start relay
13. Starter solenoid
14. Left motion control lever
15. Right motion control lever

BLK = Black
BLU = Blue
BRN = Brown
GRN = Green
GRY = Grey
LT.BLU = Light Blue
ORG = Orange
PUR = Purple
RED = Red
WHT = White
YEL = Yellow
NO = Normally Open
NC = Normally Closed
COM = Common

8011-650

TECHNICAL DATA

	968999635	968999636
Engine		
Manufacturer	Honda	Kohler
Type	GXV620	CV730
Power	20 hp / 14.9kW	25 hp / 18.4kW
Lubrication	Pressure with oil filter	Pressure with oil filter
Oil capacity excl filter	1.9 qts.(1.8 liters)	1.6 qts (1.7 liters)
Oil capacity incl filter	2.2 qts. (2.1 liters)	1.9 qts (1.8 liters)
Engine oil (See viscosity diagram)	SAE 10W30, 5W30, SAE 30, API SF, SG	SAE 10W30, 5W40, 5W30 API SG, SH, SJ
Fuel	Min 86 octane unleaded (Max ethanol 10%, Max MTBE 15%)	Min 87 octane unleaded (Max ethanol 10%, Max MTBE 15%)
Fuel tank capacity	11.4 gallons / 43 liters	11.4 gallons / 43 liters
Spark plugs / gap	NGK BPR5ES .030" / 0.75 mm	Champion Platinum 3071 .030" / 0.75 mm
Cooling	Air-cooled	Air-cooled
Air filter	Standard	Heavy duty canister
Alternator	12 V 15 A	12 V 15 A
Starter	Electric	Electric
Transmission		
Transmission	Dual pumps, Wheel drive motors	Dual pumps, Wheel drive motors
Speed and direction controls	Dual levers, foam gripped	Dual levers, foam gripped
Speed forward	0-9.5 mph / 15.3 km/h	0-9.5 mph / 15.3 km/h
Speed reverse	0-5 mph / 0-8 km/h	0-5 mph / 0-8 km/h
Brakes	Hydrostatic/brake linings	Hydrostatic/brake linings
Front caster tires, Smooth tread	13 x 5-6, 4 ply	13 x 5-6, 4 ply
Rear tires, Turf pneumatic	23 x 9.50-12	23 x 10.50-12
Tire pressure, front and rear	15 PSI / 103 kPa / 1 bar	15 PSI / 103 kPa / 1 bar
Hydraulic reservoir + system	3 qt / 2.8 liter	3 qt / 2.8 liter
Hydraulic oil	Full synthetic 15W-50	Full synthetic 15W-50

TECHNICAL DATA

	968999635	968999636
Equipment		
Cutting width	52" / 132 cm	60" / 152 cm
Cutting height	1.5" to 5" (38-127 mm)	1.5" to 5" (38-127 mm)
Uncut circle	0" / 0 cm	0" / 0 cm
Number of blades	3	3
Blade length	52" (132 cm)	60" (152 cm)
Anti-scalp rollers	Yes	Yes
Frame construction	Steel uni-frame	Steel uni-frame
Ball bearing wheels	Yes	Yes
Seat	High-density closed cell foam padded back and arm rests water-repellent fabric. Operator suspension system.	High-density closed cell foam padded back and arm rests water-repellent fabric. Operator suspension system.
Hinged armrests	Yes	Yes
Hour meter	Digital with service intervals	Digital with service intervals
Blade engagement	200 ft/lb Warner Mag-stop Electromagnetic clutch	200 ft/lb Warner Mag-stop Electromagnetic clutch
Productivity		
Productivity	3.8 acres/h/15405 m2/h	3.8 acres/h/15405 m2/h
Overall Base Dimensions		
Weight	960 lbs (435 kg)	990 lbs (449 kg)
Machine length	79" (201 cm)	81" (206 cm)
Machine width	48	52
Machine height (ROPS up)	70.5" (179 cm)	70.5" (179 cm)
Machine height (ROPS down)	57" (145 cm)	57" (145 cm)
Vibration		
Daily Exposure		
Hand/Arm - A(8)	2.44 m/s^2	2.20 m/s^2
Whole Body - A(8)	0.23 m/s^2	0.14 m/s^2
Equivalent Vibration		
Hand/Arm - $a_{hv,eq}$	2.82 m/s^2	2.54 m/s^2
Whole Body - $a_{hv,eq}$	0.27 m/s^2	0.16 m/s^2

TECHNICAL DATA

Accessories

BioClip attachment (Mulch kit)

Front baffle kit

Roll Over Protection System. ROPS with seat belt. Accessory only for EC models. Standard on US models.

Collection system

Torque Specifications

- Engine crankshaft bolt 50 ft/lb (67 Nm)
- Deck pulley bolts 45 ft/lb (61 Nm)
- Hydraulic tube nuts 30 ft/lb (41 Nm)
- Wheel motor hub nut 90 ft/lb (122 Nm)
- Lug nuts 75 ft/lb (100 Nm)
- Blade bolt 90 ft/lb (122 Nm)
- Standard ¼" fasteners 9 ft/lb (12 Nm)
- Standard 5/16" fasteners 18 ft/lb (25 Nm)
- Standard 3/8" fasteners 33 ft/lb (44 Nm)
- Standard 7/16" fasteners 52 ft/lb (70 Nm)
- Standard ½" fasteners 80 ft/lb (110 Nm)

When this product is worn out and no longer used, it shall be returned to the reseller or other party for recycling.

In order to implement improvements, specifications and designs can be altered without prior notification.

Note that no legal demands can be placed based on the information contained in these instructions.

Use only original parts for repairs. The use of other parts voids the warranty.

Do not modify or install non-standard equipment to the unit without consent from the manufacturer. Modifications to the unit may cause unsafe operation or damage the unit.

CONFORMITY CERTIFICATESE

Conformity Certificates

USA requirements

Labels are placed on the engine and/or in the engine compartment stating that the machine will fulfill the requirements. This is also applicable to special requirements for any of the states, (Californian emission rules etc.). Do not remove any of these labels. Certificates can also be supplied with the machine at delivery or written in the Engine manual. Take care of them as they are valuable documents.

USA requirements

Vibration Data corresponding to Directive 2002/44/EC is given in the Technical Data section.

The Declaration of Conformity is included in the literature packet.

SERVICE JOURNAL

Service Journal

Action	Date, mtr reading, stamp, sign
Delivery Service	
1. Charge the battery.	☐
2. Mount the rear wheels.	☐
3. Adjust the tire pressure of all wheels to 15 PSI (1 bar).	☐
4. Mount the steering controls in the normal position.	☐
5. Connect the seat fold-up stop.	☐
6. Connect the cable to the safety switch under the seat.	☐
7. Mount the arm rests on the seat's back support.	☐
8. Check that the right amount of oil is in the engine.	☐
9. Check that the right amount of oil is in the hydraulic tank.	☐
10. Adjust the position of the steering controls.	☐
11. Fill with fuel and open the fuel valve.	☐
12. Check that the machine has no transport damage.	☐
13. Start the engine.	☐
14. Check that there is drive to both wheels.	☐
15. Bleed the hydraulic system if necessary.	☐
16. Check the mower deck adjustment.	☐
17. Check:	
The safety switch for the park brake.	☐
The safety switch for the mower deck.	☐
The safety switch in the seat.	☐
The safety switch in the steering controls.	☐
Park brake functionality.	☐
Driving forward.	☐
Driving backward.	☐
Engaging the blades.	☐
18. Check the idle speed.	☐
19. Check the engine high idle speed.	☐

SERVICE JOURNAL

Action	Date, mtr reading, stamp, sign
20. Inform the customer about: The need and advantages of following the service schedule. The need and advantages of leaving the machine for service every 300 hours. The effects of service and maintaining a service journal on the machine's resale value. Application areas for BioClip. 21. Fill in the sales papers, etc.	Delivery service has been carried out. No remaining notes. Certified:
After the First 8 Hours 1. Change engine oil.	☐

SERVICE JOURNAL

Action	Date, mtr reading, stamp, sign
25-Hour Service 1. Check the fuel pump's air filter. 2. Check the hydraulic system's oil level. 3. Check the tire pressures. 4. Lubricate the belt adjuster, mower deck. 5. Lubricate the belt adjuster, hydraulic pumps. 6. Check/clean the engine's cooling air intake. 7. Clean air filter dust cap.	

SERVICE JOURNAL

Action	Date, mtr reading, stamp, sign
50-Hour Service 1. Perform the 25-hour service. 2. Lubricate the front wheel bearings. 3. Lubricate the steering control shafts. 4. Lubricate the mower deck struts. 5. Lubricate the cutting height adjuster. 6. Check/adjust the park brake.	

SERVICE JOURNAL

Action	Date, mtr reading, stamp, sign
100-Hour Service 1. Perform the 25-hour service. 2. Perform the 50-hour service. 3. Change engine oil. 4. Check whether the hydraulic oil needs changing (every 300 hours). 5. Check whether the engine oil filter needs changing (every 200 hours). 6. Clean/replace the spark plugs. 7. Replace the fuel filter. 8. Clean the cooling fins on the engine and transmission. 9. Check V-belts. 10. Check tighten caster wheel axle bolts (every 200 hours). 11. Clean and check the need to change the air filter's paper cartridge (every 200 hours). 12. Clean fins of oil cooler (Kohler). 13. Replace main air filter cartridge (200h).	

SERVICE JOURNAL

Action	Date, mtr reading, stamp, sign
300-Hour Service 1. Inspect the machine. Come to agreement with the customer as to which additional work is to be carried out. 2. Perform the 25-hour service. 3. Perform the 50-hour service. 4. Perform the 100-hour service. 5. Change the oil and filter in the hydraulic system. 6. Clean the combustion chamber and grind the valve seats. 7. Check the play in the engine valves. 8. Dismantle and inspect starter (500 h).	

SERVICE JOURNAL

Action	Date, mtr reading, stamp, sign
At Least Once Each Year 1. Clean the engine's cooling air intake (25 hours). 2. Replace the air cleaner's pre-filter (Oil-foam) (300 hours). 3. Replace the air filter's main cartridge (200 hours). 4. Change the engine oil (100 hours). 5. Replace the engine oil filter (200 hours). 6. Change the oil and filter in the hydraulic system (300 hours). 7. Check/adjust the cutting height. 8. Check/adjust the park brake (50 hours). 9. Clean/Change the spark plugs (100 hours). 10. Change the fuel filter (100 hours). 11. Clean the cooling fins (100 hours). 12. Check the play in the engine valves (300 hours). 13. Perform the 300-hour service at an authorized service workshop. 14. Clean fins of oil cooler (Kohler).	

SERVICE JOURNAL

Action	Date, mtr reading, stamp, sign

DIXON ZTR